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Project Report

NOVA SCOTIA CRUISE/FERRY
VIABILITY STUDY

Prepared for

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TABLE OF CONTENTS

Chapter			Page
I	INTRODUCTION		1
	A.	Need for the study	1
	B.	Purpose of this report	1
	C.	Our approach	2
II	HIGHLIGHTS		3
	A.	Cruise/ferry services are successful in other locations	3
	B.	A Cruise/ferry is much more than an upscale ferry	3
	C.	Key lessons of success exist	3
	D.	Marine law and regulation in North America complicates the service	3
	E.	Existing services are important to Nova Scotia tourism	4
	F.	Growth in cruising augers well for a new service	4
	G.	A significant untapped market exists	4
	H.	The selection reduced to five routes	4
	I.	A minimum size of ship is required	5
	J.	Halifax and Boston are the most suitable ports	5
	K.	The Cruise/ferry service seen as most appropriate for Nova Scotia is not financially viable as a standalone service	5
	L.	Off season options exist, but need further investigation	5
	M.	The economic impact is positive on Nova Scotia	6

Chapter			Page
III	THE CRUISE CONCEPT COMMON TO EUROPE, CAN IT WORK IN NORTH AMERICA?		7
	A.	The concept is much more than an upscale ferry	7
	B.	Characteristics of successful cruise ferry operations	8
	C.	European operators are introduction the Cruise/ ferry concept to North America	15
	D.	Regulation requirements present obstacles to North American Cruise/ferry operators	17
IV	MARINE TRAVEL IS ALREADY IMPORTANT TO NOVA SCOTIA TOURISM		20
	A.	Current services	21
	B.	Current results	25
V	EAST COAST MARKETS ARE INTRIGUED WITH THE CONCEPT		27
	A.	Tourism market to Nova Scotia	27
	B.	Cruising is a growing travel choice for North Americans	33
	C.	Significant American market could enjoy the Cruise/ferry concept	35
	D.	Nova Scotia has its own get-away market	40
	E.	Both Americans and Canadians say the concept has appeal	41
	F.	Travel agents and planners support the concept	46
	G.	Additional revenue opportunities were explored	49
	H	Market capacity appears to exist for an additional service	49
VI	SEVERAL ROUTE SCENARIOS COULD MEET DEMAND		51
	A.	Preliminary scenarios	51
	B.	Port suitability	55
	C.	Off-season options	65
	D.	Crewing and flag options	66
	E.	Capital cost, operating cost and revenue estimates	66
	F.	Our financial projections highlight key issues	70

Chapter			Page
VII	THE ECONOMIC IMPACT LOOKS POSITIVE		80
	A.	The economic impact calculations are based on a set of major assumptions	80
	B.	The economic impact of Nova Scotia	85
	C.	The small community impact can be ameliorated	90
VIII	THE PREFERRED SCENARIO		92
	A.	Criteria were developed to assess many possible service scenarios	92
	B.	One scenario is preferred	95
IX	STRATEGIES FOR A CRUISE/FERRY SERVICE FOR NOVA SCOTIA		97
	A.	Several strategic actions must be taken to obtain the service	97
	B.	Marketing actions will be critical once the service is announced	101

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I

INTRODUCTION

A. NEED FOR THE STUDY

The Province of Nova Scotia has been approached in recent years about participation in some form of additional sea link from Nova Scotia to various ports on the Eastern coast of the United States. While interested in continuing to improve Nova Scotia's economy through enhancement of the tourism sector, the Government has great concern about the potential impact of such a new service on existing ferry operations in Yarmouth and Digby and the surrounding communities.

In addition to the need of understanding the potential impacts on existing services and communities, the Province sought a clear understanding of whether a new Cruise/ferry service could be viable and what elements would be expected by the market in such a service. With this in mind, the primary objective of the study was to undertake a comprehensive market evaluation to:

- Determine the viability of a new Cruise/ferry service operating between Nova Scotia and New England.
- Determine the positive and negative impact such a service might have on existing ferry services.
- Determine the positive and negative impact such a service might have on Yarmouth/Digby Tourism operations and the Province as a whole.

The terms of reference for this study are contained in Appendix A.

B. PURPOSE OF THIS REPORT

This report has been prepared to present a comprehensive analysis of the viability of a possible Cruise/ferry operation between Nova Scotia and the Eastern Seaboard of the United States, and the impact such a potential operation could have on Nova Scotia in general, as well as specific communities and existing services. The components of this study present an unbiased understanding of the market potential of a new service, the most appropriate ports, the economic impacts, and the characteristics of a Cruise/ferry service most likely to be successful in this market. The report provides an understanding of the key success factors of Cruise/ferry operations. A key element of our report is a depth of information that will assist the Nova Scotia government, both its staff and politicians, in dealing with service proposals of this nature.

C. OUR APPROACH

The study was divided into four phases:

- Phase I – Market Assessment
- Phase II -- Scenario Testing
- Phase III –Economic Impact Assessment
- Phase IV – Development and Marketing Strategies

Phase I -- Market Assessment, began by reviewing Cruise/ferry services in operation in other locations such as the Baltic, North Sea, and Mediterranean to determine the characteristics of successful services. Data on the existing Nova Scotia services was gathered to clarify trends and fully define features. Based on this information, several preliminary service concepts were developed. These preliminary service concepts were then used as a background for six focus groups conducted in Halifax, Boston, and New York, to evaluate potential interest in the proposed Cruise/ferry service. At the end of Phase I the market potential of such a Cruise/ferry service was clearly identified.

Phase II -- Scenario Testing, allowed the modeling and testing of service alternatives in depth. Various ship types and sizes were tested on different routes, with a mix of on-board facilities. The scenario's were developed in sufficient depth to allow five year financial projections to be tested against various service combinations. The financial projections were designed so that an understanding of the implications of alternative service scenarios on specific components that affect viability were clearly understood.

Phase III – Economic Impact, examined what the effect of a new service would be on both the existing services and the communities where those services are based, and the overall impact on Nova Scotia. The first impact is the direct result of a new service, the jobs generated, and services purchased in Nova Scotia by the service operators. The current impact on existing services in Yarmouth and Digby was then explored to determine the potential of those benefits that remain in the local area. The tourism economic impact model for Nova Scotia based on Statistics Canada input/output co-efficients for Nova Scotia was modified to reflect actual expenditures in the Yarmouth area. This provided increased precision in measuring the potential impact on existing tourism in the Yarmouth area.

Phase IV – Development and Marketing Strategies, completed the research plan by developing a series of criteria for a new Cruise/ferry service. It addressed the issues of routes, seasonal/year-round operation, vessels and on-board amenities, Maritime law implications, and, the issues concerning foreign versus domestic flag and crew. The steps required to take the concept from a basic idea to a physical operating service were defined along with a marketing strategy that builds on market segment information for key target segments and strategically supports other ferry and touring services in Nova Scotia.

II

HIGHLIGHTS

A. CRUISE/FERRY SERVICES ARE SUCCESSFUL IN OTHER LOCATIONS

Although a relatively new concept in water-based travel, the Cruise/ferry approach to travel has caught on and grown dramatically in several parts of the world. The services in the Baltic and North Sea are at the leading edge of these entrepreneurial driven, market focused services.

B. A CRUISE/FERRY IS MUCH MORE THAN AN UPSCALE FERRY

Cruise/ferry vessels are much closer to the typical image of cruising than our perception of a typical ferry service. The differences are more fundamental than just physical facilities and really start with the basic differing philosophical approach between the two services. Ferries focus on efficient transportation while Cruise/ferries focus on the total ship based experience.

C. KEY LESSONS OF SUCCESS EXIST

Successful Cruise/ferry operations are characterized by: an overnight crossing; routes anchored between urban areas; fast loading and unloading and processing through customs; exciting ships with a full range of onboard amenities; diverse revenue generating alternatives onboard; a base transportation volume; business facilities; and a strong entrepreneurial spirit in management.

D. MARINE LAW AND REGULATION IN NORTH AMERICA COMPLICATES THE SERVICE

A mix of legislation, regulation, and historic precedent make any water-based service in North America a complex undertaking. The American Passenger Shipping Act clearly limits any operation to one American port while Canadian-based services run into difficulties with Customs and Excise regulations with import duties. The most cost effective approach is to base a foreign flag (none Canadian or American) vessel in an American port offering one-way and return voyages to Nova Scotia.

E. EXISTING SERVICES ARE IMPORTANT TO NOVA SCOTIA TOURISM

In 1989 a combined total of 535,565 passengers travelled on the three services; MV Princess of Acadia between Digby and St. John, the MV Bluenose between Yarmouth and Bar Harbor Harbour, and the MS Scotia Prince between Yarmouth and Portland, Maine. The MS Scotia Prince has experienced the strongest growth of the three services, both in passengers and vehicles.

F. GROWTH IN CRUISING AUGERS WELL FOR A NEW SERVICE

With a doubling of the North American cruise market seen in the next seven years, explosive growth will be the norm in the industry. The new cruise segments will be younger and interested in shorter duration get-away vacations. Convenient, well packaged offerings will have the greatest appeal and new destinations with a sense of adventure will be important.

G. A SIGNIFICANT UNTAPPED MARKET EXISTS

A large market of upscale, affluent, well educated consumers exist in the Eastern Seaboard of the United States market with an interest in Canada and a propensity toward water-based travel. Tapping this group offers Nova Scotia the opportunity to access new tourism markets. Travel agents and cruise planners concur that the concept will have appeal, but will require increased marketing of Nova Scotia as a destination to the travel/cruise industry.

H. THE SELECTION REDUCED TO FIVE ROUTES

Sailing times, population base, large active urban destinations at one end of the route, all were criteria applied to produce feasible route alternatives. In Nova Scotia, both Yarmouth and Halifax met the criteria while in New England, Boston, New London and New York were possible ports. From these ports five preliminary service concepts were identified as follows:

Boston -- Halifax (long)
Boston -- Halifax (short)
New York -- Halifax
Boston -- Yarmouth
New London -- Halifax

I. A MINIMUM SIZE OF SHIP IS REQUIRED

Based on the success factors of existing Cruise/ferry services and the results of the focus groups, investigation determined that an appropriate ship with the size to contain the most desired features would cost approximately $40 million in todays market. For this amount a 1200 to 1400 passenger Cruise/ferry approximately five to seven years of age could be purchased and refurbished. A vessel of the size would have 600 cabins, at least three restaurants, and a full range of entertainment, gambling and shopping facilities. The vessel must reflect consumers high expectations of a cruise-like service.

J. HALIFAX AND BOSTON ARE THE MOST SUITABLE PORTS

The decision on which ports are most suitable is complicated by the fact that Yarmouth and New York have all the required port facilities in place and would need minor upgrading. Halifax, on the otherhand, requires significant infrastructure investment before it would be a suitable port. The recommendation of Halifax and Boston as the most suitable ports for a Cruise/ferry service is based on market requirements. This recommendation is supported by the fact that the level of start-up port costs has a minor impact on overall financial viability.

K. THE CRUISE/FERRY SERVICE SEEN AS MOST APPROPRIATE FOR NOVA SCOTIA IS NOT FINANCIALLY VIABLE AS A STANDALONE SERVICE

Based on a $40 million ship operating a six month, 120 voyage schedule between Halifax and Boston at 70% capacity with no government support more than five years of operation is required before the service shows an operating profit. The net return-on-investment after five years is -51.1% and the owners would need more than $16 million in equity. Even the lowest cost service, Yarmouth to New London takes over five years to achieve an operating profit and has a negative return-on-investment of -44.4% after five years. A dedicated Nova Scotia, six-month service is not financially viable.

L. OFF SEASON OPTIONS EXIST, BUT NEED FURTHER INVESTIGATION

The possibility of off-season utilization of the Cruise/ferry vessel in Australia or New Zealand does exist. This possibility of year-round service significantly improves the operating results and brings them closer to the industry guide of an operating profit after two years with a project payout after five to six years.

M. THE ECONOMIC IMPACT IS POSITIVE ON NOVA SCOTIA

If a Cruise/ferry service was introduced on a Halifax to Boston route the overall economic impact on Nova Scotia would be positive. Even in the worst case scenario Nova Scotia receives $5.6 million income from Tourism revenues and $3.5 million from ship operations. The loss of income to Yarmouth is seen as less than 1% of existing tourism based business and this would decrease each year if traffic volumes on the existing services continue to grow at the pace of the past year. This passenger growth would exceed the number of passengers lost to a new Halifax based service.

III

THE CRUISE FERRY CONCEPT COMMON TO EUROPE, CAN IT WORK IN NORTH AMERICA?

In this Chapter we discuss the Cruise/ferry concept, outline the key success factors from existing services and describe current market conditions in Europe and the West Coast of Canada. We conclude this chapter with a discussion of pertinent marine law and regulation and their implications for an East Coast Cruise/ferry service.

A. THE CONCEPT IS MUCH MORE THAN AN UPSCALE FERRY

In determining the viability of a Cruise/ferry operation between Nova Scotia and the U.S. East Coast, it is first imperative that one understands the Cruise/ferry concept and how it differs from a conventional ferry. The difference lies in the emphasis. With a conventional North American ferry the emphasis is on meeting transportation needs while the emphasis of a Cruise/ferry is on the onboard experience for the passenger. Although designed to transport passenger cars and truck trailers, Cruise/ferries have most extraordinary facilities including as many as five restaurants, large duty tax free shops offering food delicacies as well as speciality and liquor items; a large number of single cabins; and the capability of loading and unloading up to 2,500 passengers, their luggage, and vehicles, in less than one hour. They also have heated indoor swimming pools, saunas, casinos, teen centres, movie theatres, ultra modern discos, and nightclub style entertainment lounges. These ships are rightfully called Cruise/ferries, as a voyage on one more resembles an exciting Caribbean cruise ship atmosphere as opposed to a traditional ferry crossing.

The Cruise/ferry concept is a relatively new one and has its origins in Europe. The concept is extremely popular in northern Europe today, especially in the Baltic where Scandinavian cruise ferries are enjoyed by over 8 million passengers a year (from a population base of only 13 million)! In just over 20 years, the passenger profile has gone from being almost 100% transportation for travellers to a mix of 80% recreation traveller and 20% transporting traveller. This development has meant a more steady capacity use through the seasons, resulting in a better earning potential, as one of the most important earning factors of any successful Cruise/ferry operation is a steady, high use, of the vessel's capacity.

Today Cruise/ferries operate in all parts of the world including Scandinavia, the Baltic, North Sea, English Channel, Mediterranean and even Australia. A summary of the routes, vessels and crossing times of these operations appears in Appendix B.

B. CHARACTERISTICS OF SUCCESSFUL CRUISE FERRY OPERATIONS

Though the Cruise/ferry concept is very young, we have identified several characteristics common to successful Cruise/ferry operations. The Cruise/ferry is much more than an upscale ferry. It is a carefully packaged "event". To be successful, any proposed Cruise/ferry operation for the Nova Scotia-U.S. East Coast service should include most or all of these characteristics.

1. Time of crossing

The time of crossing is an important consideration for a Cruise/ferry operation. The arrival and departure times must be convenient to the passengers. We have identified three distinct groupings of crossing times that appear to be the most appealing to the passengers.

a) 10-12 hours (suitable for overnight or daytime cruise).

b) 15-16 hours (leave late afternoon, arrive early morning).

c) 21-23 hours (leave morning arrive morning, or leave evening arrive evening.

Most successful operations include a one night stay onboard with a morning arrival. This schedule lessens the perceived time onboard and allows for night time meals, entertainment and recreation activities.

2. Cruises between urban areas

The selection of ports at which the crossing terminates is an extremely important consideration for Cruise/ferry operations. Having large urban centres at each end is a common characteristic of successful ventures. For example, the Baltic run between Stockholm, Sweden, and Helsinki, Finland, is very popular.

Major cities at each end results in more repeat passengers and a sustained passenger volume. In addition, the vast array of onshore activities associated with large urban port cities opens the way for short duration return mini-cruises and package vacations.

3. Fast loading and unloading

Cruise ferry operations are very sensitive to loading and unloading times. As the typical passenger is concerned with recreation, it is imperative that the processing time at port is kept to a minimum, even if a fast vessel turnaround is not an issue. Baltic operations can clear a ship of 2,500 passengers in under one hour. It is this part of the voyage that leaves a lasting impression on the passengers.

4. First impressions

As with most tourist-oriented businesses, it is the passengers' first impressions that leave a lasting memory when they return home and talk to their friends. For this reason, successful Cruise/ferry operations take several steps to ensure that the passengers like the first things they see. Pleasant terminal facilities are a must, requiring comfortable departure lounge facilities and efficient luggage-handling systems.

The exterior of the ships are clean, bright and usually emblazoned with large eye-catching company logos. They definitely stand out on otherwise bland waterfronts.

The first step a passenger takes onto a ship must be memorable. Successful ships have spacious, elegant entrance halls flooded with natural light to give the passenger a feeling of openness and lavishness. Some excellent examples of Cruise/ferry exteriors and entrance halls appear in Exhibits III-1 and III-2.

5. Onboard amenities

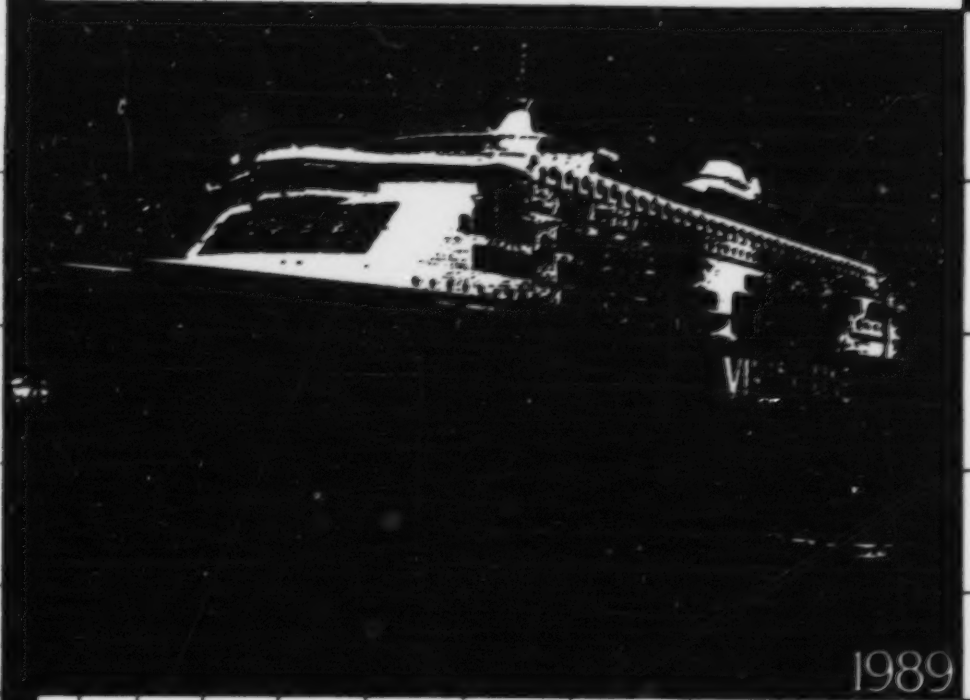
Successful Cruise/ferry operators cater to pleasing the passenger. They look on the passenger as a pleasure-seeking holiday-maker rather than a object of transportable cargo and focus on satisfying his/her needs and desires. This attitude is very important. A Cruise/ferry operator understands that the success of the business hinges on making the crossing a "happening" for the passenger. An operator must make it appear that the passenger is getting more than what he/she paid for. This is largely done through a plethora of onboard amenities made available for passenger use.

Onboard facilities typically include:

- Gourmet restaurants.
- A la carte restaurants.
- Fast food restaurants.
- Swedish "smorgasbord" type food service.
- Bars/nightclubs/discos.
- Dancing/entertainment/special theme activities.
- Casino activities.
- Conference activities and services.
- Finnish sauna/swimming pools.
- Duty free shops.

Exhibit III-1

ATHENA



1989

WÄRTSILÄ MARINE

exhibit iii-2

ATHENA

GROSS TONNAGE (GT)	40.000
LENGTH	176 m (577 ft)
BEAM	29 m (95 ft)
DRAUGHT	6 m (20 ft)
ENGINES	4 Wärtsilä-Sulzer Diesel
	engines, 32.000 hp
SPEED	21 knots
NUMBER OF PASSENGER DECKS	9
NUMBER OF PASSENGERS	2.200
CREW	215
CABINS	573
RESTAURANTS AND BARS	11
PUBLIC SPACES	2.547 seats
CONFERENCE SECTOR	
— AUDITORIUM	210 seats
— CONFERENCE ROOMS	264 seats
EXHIBITION AREA	1.000 m²
SAUNAS	5
SWIMMING POOLS	2 + 2 jacuzzis
GARAGE	90 cars
LIFEBOATS	12 + 2 rescue boats
HOME PORT	Slite, Gotland

- Recreation facilities.
- Bars and entertainment.
- Shopping facilities.
- Children's playrooms.

These keep the passengers happily entertained and occupied for the entire voyage. By offering gambling and duty-free shopping, the passenger is offered activities which are not readily available ashore, making the cruise a novel event.

Since there are a variety of passenger types, it is important that each area of the ship has its own specific atmosphere. Beautiful rooms, like great music, create a specific mood. Restaurants should offer a variety of menus, presentations and atmosphere. Each passenger must feel he/she is doing something special.

Exhibit III-3 shows a modern Baltic Cruise/ferry with all its onboard facilities.

6. Onboard revenue

Of course, these amenities not only please the passenger but are also a source of significant amount of revenue to the operator. Successful Cruise/ferry operators rely on a great deal onboard revenue generated through passenger spending on food, entertainment and shopping rather than on ticket sales alone. Operators have found that the maximum return per passenger is obtained by offering more varied amenities and attractions to the passenger. Successful operators go by the adage, "When they' re on, sell what you have but make them happy – they might return!"

7. Base transportation

Most successful Cruise/ferry operators rely on a fixed-bare load of transportation oriented volume to sustain operations. The Baltic system is extremely successful because a marine leg is unavoidable for vehicle travel between Sweden and Finland.

8. Conference facilities

A new concept in successful Cruise/ferry operation is to cater to the business conventions and meetings market. Businessmen are the best paying passengers and therefore can contribute favourably to onboard revenue. By providing the necessary lecture halls, conference rooms, services and communications facilities, the business passenger is attracted to holding his meetings on the ship.

exhibit III-3

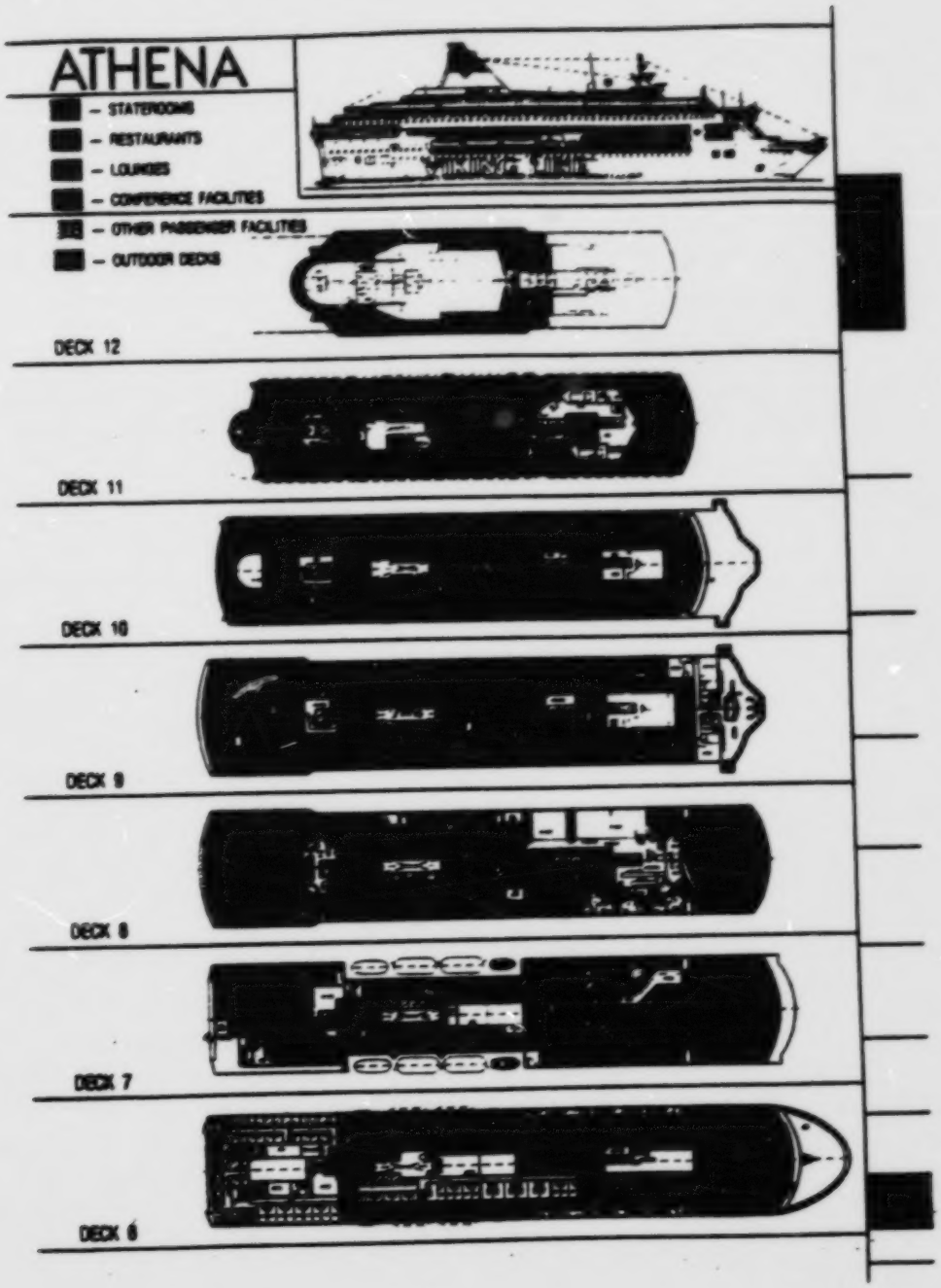
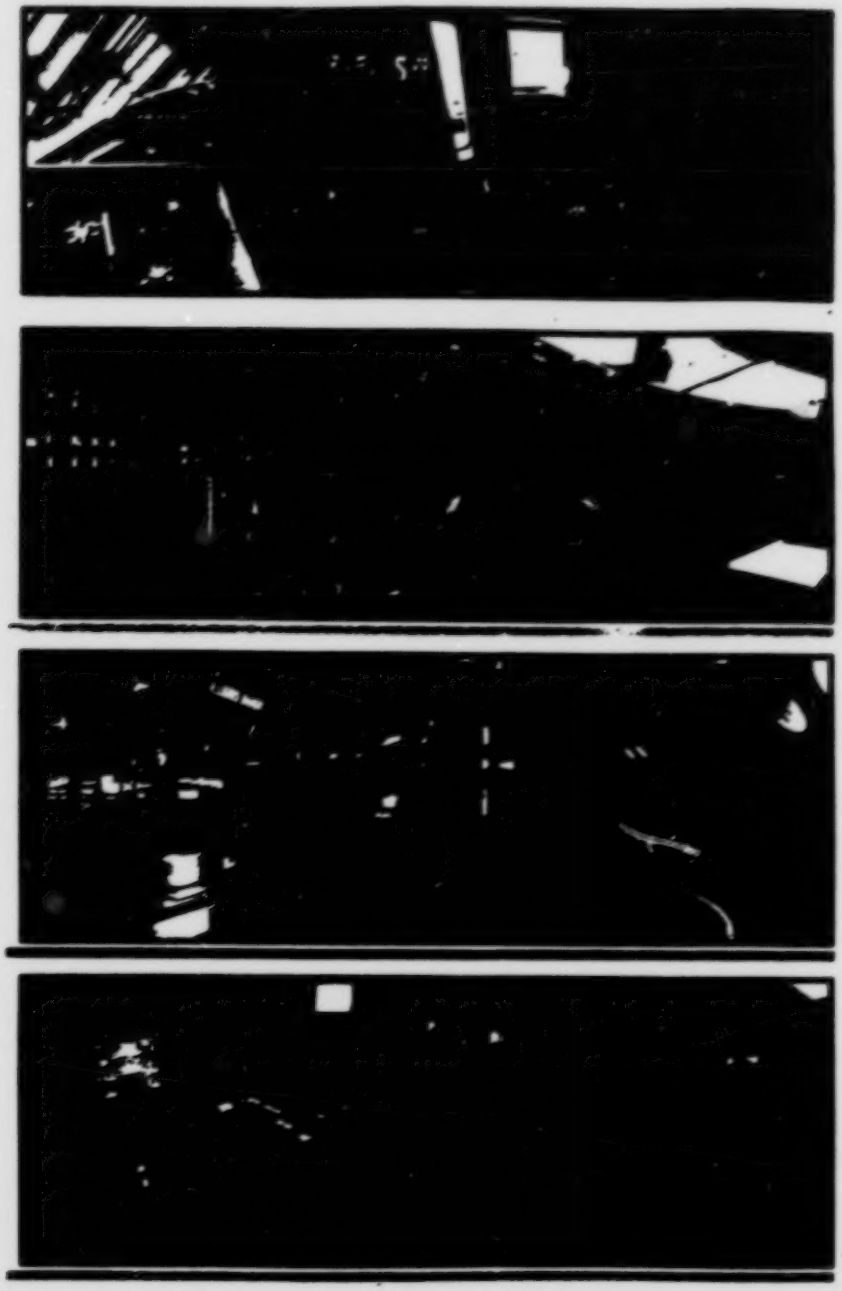


exhibit III-3 cont'd.



9. Entrepreneurship

Successful Cruise/ferry operations are successful because their owners and operators show a high degree of entrepreneurial style. They are not afraid to try novel, untested ideas and are always willing to provide new services and better facilities if the market so dictates. The vibrant rapid growth of the Baltic service would not have been possible without the brash competitive style of the main operators, VIKING LINE and SILJA LINE.

C. EUROPEAN OPERATORS ARE INTRODUCING THE CRUISE/FERRY CONCEPT TO NORTH AMERICA

The proven success of the Cruise/ferry concept in Europe has prompted several operators to introduce the concept to the North American market with varying degrees of success.

An initial attempt to enter the North American market was carried out by DFDS Line of Denmark. In 1983 a costly bid to establish a Cruise/ferry operation between New York City and Nassau, Bahamas, was initiated through a Nassau-based subsidiary, Scandinavian World Cruises. The intent was to use a luxurious purpose-built vessel, the 26,000 ton Scandinavian, capable of carrying 1606 passengers and 520 cars.

The service, with connections to Miami, never caught on and was abandoned within two years. DFDS was undergoing a period of uncontrolled expansion at the time and it is generally accepted in the industry that the demise of this service was a result of an inept and misguided marketing program and did not truly represent the state of the Cruise/ferry market in North America.

In recent years, there has been renewed interest in the North America market. This is largely because a rash of new Cruise/ferry buildings in Europe has resulted in the possible availability of older Scandinavian ships for use in North American waters.

In 1990, B. C. Stena Line is bringing in the ex-"Lion Queen" (see Exhibit III-4) to be renamed the "Crown Princess Victoria" to run between Victoria, B. C. and Seattle, Washington. This is a relatively short, 5-hour crossing, shorter than most Cruise/ferry runs. The ship can carry 1300 passengers in 240 cabins and holds 250 cars. B. C. Stena Line hopes this is the beginning of a successful Cruise/ferry network along the West Coast.

The only existing North American marine service that resembles that the European cruise ferries is the Prince of Fundy Cruises operating between Yarmouth, Nova Scotia, and Portland, Maine. They use the newly refurbished "Scotia Prince", a 1,500 passenger, 220 car vessel, on the 11-hour run and offer many of the services available on a Cruise/ferry, albeit on a smaller, less extravagant scale including 1,054 berths. More information on this service can be found in Chapter IV.

exhibit iii-4

D. REGULATION REQUIREMENTS PRESENT OBSTACLES TO NORTH AMERICAN CRUISE/FERRY OPERATORS

One of the reasons that the Cruise/ferry concept has been slow to catch on in North America is that there are many complicated regulatory obstacles that make it difficult for operators to run a successful business here. These stem mostly from protectionist legislation in both Canada and the USA regarding the domestic shipping industry. A full description of these laws can be found in a recent study entitled "Review of Legislation on the B. C. Cruise Ship Industry", by Don Ference & Associates. Appendix C contains the executive summary of this report and a second report: "The Alaska Cruise Industry: Canadian Legislation and Regulation Existing and Pending" prepared by Jonathan Seymour and Associates. The following summarizes the key issues for a Nova Scotian Cruise/ferry service.

1. U.S. Cabotage

Cabotage, which is the reservation of coastwise traffic to domestic ships, was first introduced into the U.S. maritime trade in 1789. The present prohibition of passenger carriage on foreign vessels between U.S. ports is contained in the 1886 Passenger Shipping Act. This Act was specifically designed to exclude ships of foreign registry from carrying passengers coastwise from one U.S. port to another. The rationale for the Act was the protection of the U.S. passenger shipping industry from foreign competitors and the enhancement of the employment interests of U.S. seamen. This Act is generally applied in conjunction with the 1920 Merchant Marine Act or the Jones Act as it is commonly known.

The Jones Act states the policy objectives of U.S. marine legislation. Some of these objectives are listed below:

- To carry all domestic traffic.
- To maintain domestic and foreign marine trade at all times.
- To be owned by U.S. citizens and operated under U.S. flag.
- To be constructed in the U.S.
- To be manned with trained and efficient U.S. citizens.
- To be supported by efficient shipbuilding and repair facilities.

U.S. marine policies have been largely ineffective. It is generally accepted that a reform of the statutory framework is required. However, the continued strength of the domestic maritime lobby (owners, shipyards and labour) has blocked any changes in policy as is readily apparent from the recent exclusion of Canadian access into the American domestic marine trades from the U.S./Canada Free Trade Agreement.

2. Application of U.S. regulations

In recent years, a degree of liberalization has occurred in the application of the Passengers Shipping Act as a result of changes to the Code of Federal Regulations effected in 1985.

The present regulations for foreign flag vessels operating in the U.S. require inclusion of only one foreign port in each voyage. This means that "cruises to nowhere" are permitted -- providing the cruise includes international or foreign waters and the previous maximum 24 hour stop-over provisions have been eliminated. U.S. embarked passengers may also rejoin the vessel at the same or another intermediate port providing they re-embark on the same vessel and in the course of the same voyage -- i.e. they have not left the vessel permanently. The prohibition of carrying passengers between two different U.S. ports is retained, however.

The Carriers, Drawback and Bonds Division of the U.S. Customs Service in Washington is responsible for the interpretation and enforcement of the U.S. cabotage laws.

It should be noted that a recent study by the National Transportation Safety Board has recommended that the U.S. broaden its authority over foreign passenger vessels trading out of U.S.A. ports. This is a result of several fires that have occurred on foreign flagged vessels while operating in U.S. waters. This could lead to a tightening of restrictions in the future.

3. Canadian cabotage

The present definition of Canadian coasting trade in respect of passenger transportation by ship is provided in Section 2 of the Canadian Shipping Act of 1934. It states that:

> *[the] "coasting trade of Canada includes carriage of goods or passengers from one port or place in Canada to another port or place in Canada."*

The use of the word "includes" has resulted in considerable scope of interpretation. Over the years, there has been a growing opinion in Canada that the coasting trade provisions should be updated and tightened while any exemptions should be made very specific.

A study by Transport Canada in 1982, titled "New Coasting Trade Policy" led the way to the Coasting Trade and Commercial Marine Activities Act (Bill C-52). The purpose of Bill C-52 was to close the coasting trade of Canada to all ships except ships registered in Canada (including foreign-built ships if all duties and taxes were paid). Foreign flagged ships would be permitted to trade under license subject to the non-availability of suitable vessels in Canada and payment of applicable duties and taxes for

temporary use in Canadian waters. Bill C-52 died when the last Federal election was called, leaving the Canadian cabotage policy in limbo.

As the regulations stand now, any service originating in Canada that includes one-way voyages to one international port is considered not to be involved in the coasting trade, even if it returns to the Canadian port. Thus there is no need to obtain a special license. However, this does not deal with the issue of duties and taxes.

A foreign flagged vessel that is considered involved in international trade from a licensing point of view can still be required to pay importation duties and taxes for operating from a Canadian port. This is because the applicable definitions of Coasting Trade used by Customs and Excise are different from those of the Canada Shipping Act. By their definition, any ship operating from a Canadian port that returns to a Canadian port via a foreign port is required to pay a 25% importation duty. However, the policy in force today is that any foreign flagged ship that has over 250 overnight berths is exempted from the importation duties and taxes.

4. Implications of Cabotage Laws on an East Coast Cruise/ferry Service

The implications of the U.S. and Canadian Cabotage Laws on a potential Nova Scotia-East Coast U.S. Cruise/ferry service can be summarized by the following caveats:

a) If the ship is based in U.S.A

i) The ship could not trade between two U.S. ports unless U.S. flagged, built and owned.

ii) Foreign flagged ship could stop at intermediate U.S. port enroute to a Canadian port IF all passengers that embarked at original port returned to the same ship as part of same voyage.

iii) Foreign flagged ship would not be subject to any duties or taxes when operating between U.S. and Canada.

b) If the ship is based in Canada

i) Foreign flagged ship could not operate between two Canadian ports unless no suitable Canadian ship can be found. Even so, the ship would be subject to permanent or temporary importation duties and taxes.

ii) A foreign flagged ship operating between a Canadian and a U.S. port that offers return voyages to the Canadian port MAY be subject to the applicable duties and taxes (which are substantial). However, if one-way tickets are available, the practice has been to exempt ships from these duties and taxes, (for instance, the Vancouver to Alaska cruise ships).

5. Conclusion

Taking into account the relevant U.S. and Canadian legislation, it appears that the most cost effective method for a foreign flag operator to offer an East Coast U.S./Nova Scotia service is to base the vessel in a U.S. port and offer the following voyages -- U.S./Nova Scotia, Nova Scotia/U.S. and round trip U.S. Waivers and licenses would not be required and duty/tax free operation would be permitted.

IV

MARINE TRAVEL IS ALREADY IMPORTANT TO NOVA SCOTIA TOURISM

In this chapter we examine the current services operating from Digby and Yarmouth looking at both the routes and the vessels. We then review the results of the past three years operations in terms of passengers and vehicles carried.

A. CURRENT SERVICES

Marine travel has always played an important role in the economic life of Nova Scotia and increasingly in the tourism business of the Province. Although water access to Nova Scotia occurs from Newfoundland and P.E.I., in addition to services from Maine and New Brunswick, for the purposes of this study we are concerned with only three services: two operated by Marine Atlantic, and the third by Prince of Fundy Cruises Limited. The existing routes of these services are detailed in Exhibit IV-1. The crossings range from a short 2 1/2 hours (Digby to Saint John), to a longer 10 1/2 hours (Yarmouth to Portland, Maine).

EXHIBIT IV-1
Existing Trans-Fundy/U.S. ferry service routes

Crossing Ports	Operator	Vessel	Distance	Vessel Speed	Time
Digby N. S. to St. John, N. B.	Marine Atlantic	Princess of Acadia	43 N. M.	15.5 knots 30 min.	2 hours
Yarmouth N. S. to Bar Harbor, Maine	Marine Atlantic	Bluenose	111 N. M.	21.0 knots	6 hours
Yarmouth N. S. to Portland, Maine	Prince of Fundy Cruise	Scotia Prince	200 N. M.	18.5 knots	10 hours 30 min.

The vessels operating on these three routes are very different in design purpose. The MV Princess of Acadia operating on the shortest Digby/St. John service is a car/ferry with no sleeping berths. The MV Bluenose has berths for one in seventeen passengers on the six hour Yarmouth to Bar Harbor, Maine run and describe their service as passenger/auto ferry with more emphasis on services. The MS Scotia Prince operates on the ten-and-a-half hour run from Yarmouth to Portland, Maine. With berths for two of

every three passengers, the ship has full service and entertainment, and describes itself as a cruise ship. All three vessels date from the early 1970's with the MV Bluenose being refitted in 1983, and the MS Scotia Prince refitted in 1987.

Exhibits IV-2, IV-3, IV-4, IV-5, and IV-6 detail the ship technical aspects, the key facilities and features and the route schedules and fares for each of the three services.

EXHIBIT IV-2
Existing Trans-Fundy/U.S. ferry service

	Princess of Acadia	Bluenose	Scotia Prince
Length (m)	146.3	125.0	143.0
Tonnage (GT)	10,051	6,524	11,968
Power (KW)	8,564	12,310	13,240
Speed (KNOTS)	15.5	21.0	18.5
Cars	159	250[1]	220
Passengers	650	1,000[1]	1,500
Source	89 Guide	89 Guide	89 Guide

*(Marine Atlantic Table listed this vessels' car capacity at 250, and passenger capacity at 1,000 while the '89 Guide lists 375 cars and 1,800 passengers in error.)

The following is a detailed description of the facilities and special features of each vessel.

EXHIBIT IV-3
Vessel descriptions

History	Facilities	Features
MS Scotia Prince:		
Owned by Transworld Steamship Operated by Prince of Fundy Cruise Built in 1972 in Yugoslavia Formerly STENA OLYMPICA Refurbished in 1987	Princess Dining Room, 320 seats Columbus Room - 140 seats Dolphin Lounge - 350 seats Owl's Nest Lounge - 70 seats 1054 berths in 315 cabins	Casino Overnight cabins Gift shop Duty free shop Films Bingo Video horse racing
MV Bluenose:		
Owned/operated by Marine Atlantic Built in 1974 in Yugoslavia Formerly Stena Jutlandica $21.5 million refit in June, 1983	Buffet dining room 2-30 seat private dining rooms Cafeteria Quiet Lounges Two bars Newsstand 105 berths/some cabins	Restrooms Slot machines Child's play area Non-smoking area Facilities for disabled passengers Gift shop Duty free shop
MV Princess of Acadia:		
Owned/operated by Marine Atlantic Built in 1971 in St. John, N.B.	7 deluxe cabins/no berths Cafeteria Bar	No entertainment No gambling Gift shop

Source: Company literature

EXHIBIT IV-4
Digby, N. S. to Saint John, N. B. route schedules and fares

Season	First & Last Departure	# of Sailings Per Day	Passenger Fare One Way	Vehicle Fare
Feb. 27--May 6 Oct. 22-Dec. 31	SJ 0001 D 1530	2	$14.25	$44.00
May 7-June 24	SJ 0001 D 1530 D 2015	2 Mon-Fri, Sun 3 Sat 3 Sat-Sun		
June 25-Oct. 21	SJ 0030 D 2015	2 Sun 3 Mon.-Sat.		
Day Cabins are $16.00-$22.00/day				

Source: Company literature

EXHIBIT IV-5
Yarmouth N. S. to Bar Harbour Maine route schedules and fares

Season	Departure	# of Sailings Per Day	Passenger Fare	Car Fare
Jan. 1-May 13 Oct. 22-Dec. 31	Y 1500 AT Sun, Tues, Thurs	1	CAN $25.50	$47.25
	BH 2300 ET Mon, Wed, Fri	1		
May 14-June 12 Sept. 25-Oct. 21	Y 0900 AT Sun, Tues, Thurs	1	CAN $25.50	$47.25
	BH 0830 ET Mon, Wed, Fri	1		
June 23-Sept. 24	Y 1630 AT Daily BH 0800 ET Daily	1 return	CAN $34.00	$63.00
Day cabins are $0.50/day Night cabins are $45.75/night				

Source: Company literature

EXHIBIT IV-6
Portland Maine to Yarmouth N. S. route schedules and fares

Season	Departures	# of Sailings Per Day	Passenger Fare	Car Fare
May 5-June 22	Y 11:00 AM AT P 9:30 PM ET	1 (11 hours)	US $45.	US $70.
June 23-Sept. 19	Y 10:00 AM AT P 9:00 PM ET		US $65.	US $90.
Sept. 20-Oct. 22	Y 11:00 AM AT P 9:30 PM ET		US $45.	US $70.

Day cabins (Yarmouth to Portland only) -- US $20.00-$25.00/day

Night cabins US $20.00-$58.00 (low season)
US $32.00-$95.00 (high season)

Source: Company literature

B. CURRENT RESULTS

As stated earlier, the positioning of the three services is very different and each serves distinct market segments.

The route from Nova Scotia to New Brunswick carries an average of 30% commercial traffic on daily year-round services. The Yarmouth/Bar Harbor service averages 10% commercial traffic and operates on a reduced schedule from mid-September to mid-June, moving to daily service for the peak tourist season. The Yarmouth/Portland service is almost purely a seasonal tourism based venture with less than 1% commerical traffic. Exhibit IV-7 summarizes the past three years operating results for passengers and vehicles.

EXHIBIT IV-7
Existing Trans-Fundy/U.S. ferry service traffic volumes

Route	Passengers	Passenger Vehicles	Commercial Vehicles	% Comm. Traffic[1]
Princess of Acadia Digby -- St. John				
1987	223,062	62,893	25,619	29.0%
1988	229,112	65,254	25,741	28.3%
1989 (est)	236,000	68,000	22,000	24.4%
Bluenose Yarmouth -- Bar Harbor				
1987	119,163	34,736	3,722	9.7%
1988	124,012	37,610	4,135	9.9%
1989 (est)	123,000	38,600	3,700	8.7%
Scotia Prince Portland -- Yarmouth				
1988	171,946	28,738 [2]	1,078	3.6%
1989 (est)	177,565	30,015 [3]	1,099	3.5%
1989 Total	536,365	133,005		

Source: US Customs Data, Tourism N.S. Estimates, Prince of Fundy Interview

[1]Note % commercial traffic calculated on basis of number of vehicles, not space occupied.

[2]Does not include 926 buses.

[3]Does not include 943 buses.

Over the past three years the total number of passengers carried has grown. The number of passenger vehicles has not grown proportionately as much as the passenger traffic, indicating strong growth in the walk-on passengers, particularly on the Yarmouth/Bar Harbor, Bluenose day cruise and overnight package to Yarmouth, and the Yarmouth/Portland 23 hour immediate return, mini-cruises. Using the daily passenger and private vehicle capacity for the MV Scotia Prince, we can estimate that in 1989, with 250 scheduled one-way sailings, the service was at 46% overall utilization for passengers and 55% utilization for passenger vehicles, and experienced a growth in 1989 of 4% in passengers and 8% in automobiles, stronger growth in 1989 than the two Marine Atlantic services.

V

EAST COAST MARKETS ARE INTRIGUED WITH THE CONCEPT

In this chapter we explore the tourism market for the Cruise/ferry service. Beginning with an overview of provincial trends, our analysis then focuses on cruising, the get-away market, and the likelihood of people in Nova Scotia and New England being attracted to the proposed Cruise/ferry service. The attractiveness of the concept to cruise planners, tour operators, bus tour planners, and business meeting and training coordinators is then explored. Finally, we discuss the attractiveness of a Cruise/ferry service to other than tourism traffic and draw some conclusions on the market capacity and its ability to handle an additional service.

A. TOURISM MARKET TO NOVA SCOTIA

Tourism has been an important industry in Nova Scotia for many years. Total travel-related expenditures grew 4% in 1988 to about $760 million.

By making some broad assumptions concerning data from different sources and different years, we calculated an order-of-magnitude estimate of the current volume of overnight travellers to/in Nova Scotia. We estimate about 2,530,000 overnight person-trips occur annually. The origin of these travellers is distributed approximately as follows:

Resident Nova Scotians	51.7%
Other Canadians	36.6%
U.S.A.	11.7%
	100.0%

In addition, about 1.0 million same-day trips of over 50 miles were made by Nova Scotians.

In the following sections, we discuss the pertinent characteristics of the primary markets for travel to/in Nova Scotia. In particular, we highlight data that are relevant to assessing the market potential for the Cruise/ferry concept.

1. The resident travel market

Local Nova Scotians are the largest single source of travel-related activity in the province. In 1988, they represented $371 million (49%) of the total travel-related expenditures in the province.

a) In-province travel

According to the Nova Scotia Resident Travel Survey, residents took 2,832,000 person-trips between May 15 and October 31, 1985. Of this total, over 78% were trips to Nova Scotia destinations. These 2.22 million in-province person-trips were either same-day travel (.986 million, or 44%) or for overnight travel (1.234 million, or 56%). Families quite often make up the resident travel part. For example, 17.1% of the 2.22 million in-province trips comprised families with the chief wage earner over 45 years old and with children younger than 17 years. Overall, 27% of all resident travel parties comprised families. The single traveller was also prevalent, and accounted for 28% of the person-trips by residents in the province.

b) Out-of-province travel to the USA

According to the International Travel Survey the most popular pleasure destination for Canadians is the United States with some growth in 1989 over 1988 (from 14.4% of Canadians' longest vacation intended in 1988 to 15.7% in 1989). Pleasure remains the most important trip purpose as shown in Exhibit V-1.

EXHIBIT V-1
Overnight Canadian travellers to the USA by trip purpose

	Trip Purpose			
Year	Pleasure	Visit Friends & Relative	Business	Other
85	60.9%	24.2%	9.4%	7.3%
86	58.8%	24.1%	9.0%	8.1%
87	63.3%	23.2%	8.5%	5.0%
88	63.5%	20.5%	9.0%	7.0%

Source: 1989 Summer Vacation Outlook

Of the 612,000 out-of-province person trips (N.S. Resident Travel Survey) using the Consumer Travel Intentions Survey using 15.7% intention to travel to the U.S., you have 96,084 N.S. person trips to the United States with 80,710 of these for pleasure and VFR.

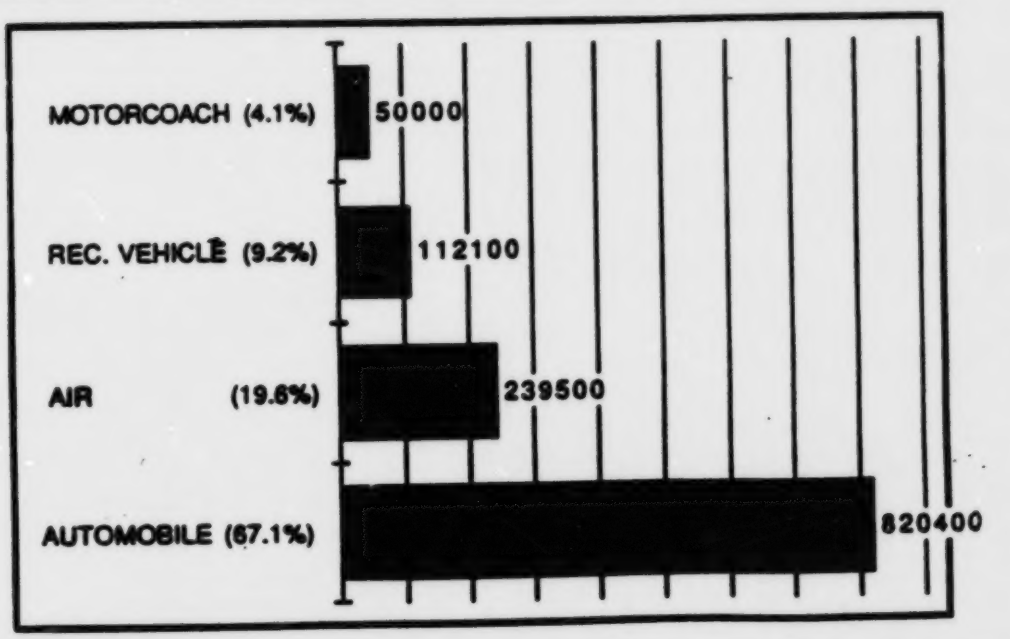
2. The non-resident North American market

In 1988, 1.222 million non-resident travellers stayed overnight during the primary tourist season of May 15 to October 31. This volume was up approximately 2% from 1987. We look first at how visitors travel to Nova Scotia, and then where they came from.

a) The automobile is the most common mode of transportation used by visitors to Nova Scotia

Approximately two-thirds of all visitors to the province arrive by automobile. This mode has shown steady annual increases over the last five years. In 1987, approximately 794,000 (66.3% of the 1,197,100 non-resident overnight visitors) travelled by automobile. Whereas, the total visitation increased by 2% to 1,222,000 in 1988, the number of auto travellers increased 3.3% to 820,400. Air travel was used by about 20% of all overnight visitors in both years. Exhibit V-2 presents a proportional distribution of the modes of transportation used by visitors in 1988.

EXHIBIT V-2
Visitors choice of travel mode to Nova Scotia 1988

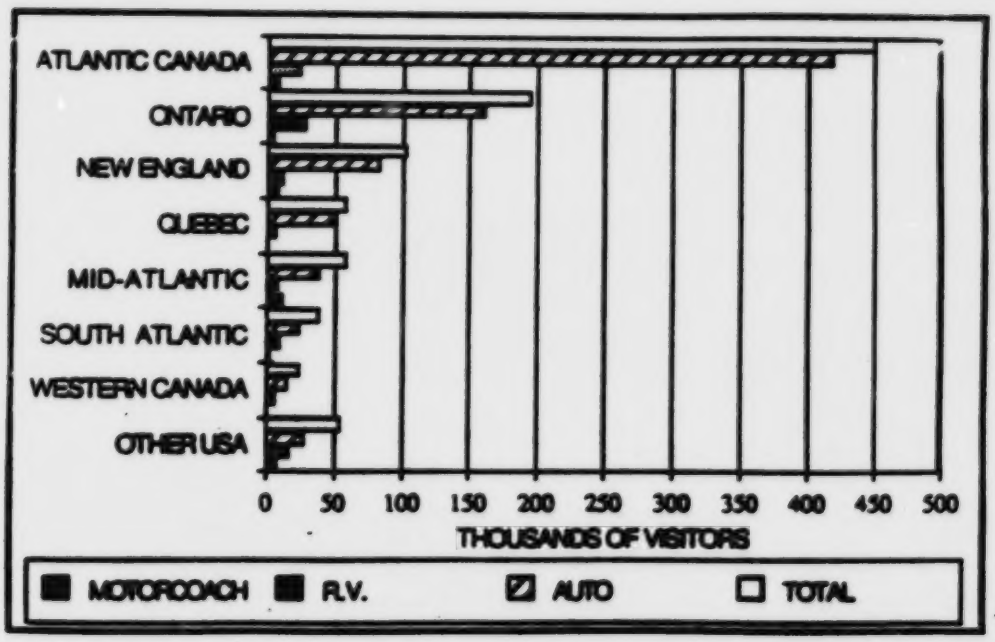


b) Atlantic Canada provides the largest volume of visitors

To assess the origin of the province's non-resident tourist markets, we focused on those travelling on the ground and staying at least one night in Nova Scotia. By excluding air travellers and day visitors, we can focus on the origins of travellers who were not constrained by established air routes. Similarly, visitor origin data would not be skewed by flight origin patterns.

Ground travellers are people who made a decision to invest the time and effort required to reach (and stay in) Nova Scotia by car, recreational vehicle or motorcoach. The largest segment, by far, among these travellers is auto travellers from other Atlantic Canada provinces. They accounted for 45.9% of the 982,500 ground-based, overnight visitors in 1988. Exhibit V-3 demonstrates that the other significant origins were Ontario and New England, followed by Quebec and the Mid-Atlantic states. These regions have traditionally remained the top five origins of Nova Scotia visitors. The origins of auto travellers parallel the overall pattern. However, the South Atlantic states replace Quebec as a top-five ranked origin of visitors travelling by motorcoach or recreational vehicle.

EXHIBIT V-3
Origin of non-resident North American visitors, by mode of transportation



c) Cultural links with Nova Scotia

In Canada, the top three origins (based on volumes) for visitors should continue to be Atlantic Canada, Ontario and Quebec. In the U.S.A., the two largest markets have continued to be New England and the Mid-Atlantic states. The 1987 Market Segmentation Study[1] confirmed this notion. It identified the top ten states with the greatest market potential for the accommodation industry in Nova Scotia:

1. New York
2. Massachusetts
3. Pennsylvania
4. New Jersey
5. Florida
6. Connecticut
7. Virginia
8. Maryland
9. Ohio
10. California

d) The American touring vacationer has a positive image of Atlantic Canada

The U.S. Pleasure Travel Market Survey[2] suggested that the most popular types of vacation to Canada by Americans is Touring. This segment accounted for 37% of U.S. trip-nights to Canada in 1985. Touring vacations refer to trips by car, bus, or train through areas of scenic, cultural, or general interest. This market is fairly evenly distributed in terms of age, with 53% being younger than 44 years. Over 73% are married. About 56% earn more than $30,000 per year. This segment's perceptions of travel to Atlantic Canada include strong agreement with the following concepts:

- Is a vacation I'd really enjoy.
- Has truly beautiful scenery.
- Is a good place to experience different cultures, ways of life.
- Has interesting cities and towns.
- Is very different from other places I know.
- Has lots of things to see and do.

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[1] *Market Segmentation Study, prepared by Corporate Research Associates Ltd. for the Nova Scotia Department of Tourism and the federal Department of Regional Industrial Expansion, 1987, page 37.*

[2] *U.S. Pleasure Travel Market Survey, prepared by Longwoods Research for Tourism Canada, 1986.*

The U.S.A. represents about 11.7% of all overnight person-trips in the province. In 1988, about 254,000 Americans visited Nova Scotia (arriving by ground transportation). Of this total, 175,000 were in autos, 46,300 in recreational vehicles, and 32,900 in motorcoaches. We estimate an additional 42,400 arrived by air.

3. International market

Visitors to Nova Scotia may originate from countries other than Canada or the U.S.A. However, their proportion of the total volume of visitors is very small. One report we reviewed suggested international visitors comprise about 1% of total person visits annually. In 1986, an estimated 6,800 residents of France visited Atlantic Canada. This total was down slightly from 6,900 in 1980. Similar statistics for West Germany and the United Kingdom are included in Exhibit V-4 below:

EXHIBIT V-4
Trends in visits to Atlantic Canada from France, West Germany and the United Kingdom

	Number of Visits		
Year	France	West Germany	United Kingdom
1982	6,900	9,800	24,600
1986	6,800	10,900	33,200

Source: Pleasure Travel Markets to North America, 1989.

During the 1982 through 1986 period, a higher percent of French visitors travelled for pleasure purposes. In 1982, 58.1% of the trips were primarily for "pleasure" or "pleasure and visiting friends or relatives." By 1986, this total had grown to 64.7%.

As these data indicate, the overall international market is small. As well, many of these visitors may be only passing through Atlantic Canada because of air routes, and do not have the inclination or opportunity to take a Cruise/ferry.

The international market should be considered as incidental when assessing the overall feasibility of a Cruise/ferry service. The market potential is too low to become a deciding factor in such an assessment.

B. CRUISING IS A GROWING TRAVEL CHOICE FOR NORTH AMERICANS

The cruise industry is entering a period of rapid, explosive growth in North America. The number of cruise passengers embarking on vessels from North American ports has increased from 1.43 million in 1980 to 3.16 million in 1988. Projections are that the size of this market will double over the next seven years to over 6 million passengers by 1997 (Cruise Line International Association (CLIA) Passenger Carrying Report). For this reason the cruise industry is considered the fastest growing segment of the leisure/vacation industry.

Cruises embarking from North American ports are estimated to comprise 61% of world-wide cruise revenues. In 1988 this was estimated at over $4 billion U.S. by the CLIA. In terms of country of origin, passengers from the United States are estimated to have accounted for approximately 74% of all cruise customers in 1985. Europeans accounted for the second largest proportion of cruise ship customers with the balance made up primarily from Australia, the Far East, and Canada. Approximately 65,000 Canadians took cruises in 1985 and accounted for 3% of the world cruise market (Tourism Canada: Profile of the Eastern Canadian Cruise Industry, 1988).

The majority of popular cruise destinations are in the Caribbean with 52.8% of the total number of available passenger days in 1988. Exhibit V - 5 describes the deployment of world-wide cruise capacity by destination area. The Canada/New England area attracts only 0.9% of available passenger days in 1988.

EXHIBIT V-5
Cruise vessel capacity deployment by destination area - 1988

Destination Area	Percent of Total
Caribbean	52.8%
Mexico/West South Pacific	10.0%
Europe/Mediterranean	10.0%
Alaska	7.1%
Panama	5.6%
Bermuda	3.5%
Trans Atlantic/Pacific	2.2%
South America	1.3%
Asia & Far East	1.9%
Canada/New England	0.9%
Other	4.6%
TOTAL	100%

Source: Profile of the Eastern Canadian Cruise Industry, 1988 Tourism Canada

The 1988 Profile of the Eastern Canadian Cruise Industry (Tourism Canada) identified five major trends in the cruise industry:

- Increase in the size of the potential market. The traditional cruise market is shifting from the over 60's (who accounted for 44% of all cruise passengers in 1988) to a younger market. Indicative of this swing, in 1988, 41% of all new cruisers were less than 35 years of age, and first-time cruisers now account for 70% of all cruise passengers. A 1986 survey by CLIA found that 53% of individuals who have never taken a cruise express positive interest in purchasing a cruise package.

- Increase in the range of packages offered and the level of product differentiation. To tap the growing market interest, cruise operators are designing an increasingly wider array of cruise packages.

- Increase in average vessel size. In 1988, the average number of berths available on cruise ships deployed in North America was 643. The average number available on the 31 ships under construction for that market is 1,112, a significant increase in average vessel size.

- Decline in the average duration of cruises. Exhibit V-6 illustrates the shift to shorter duration cruises over the period 1980-1987, with the one to five day cruises being the only category showing growth.

- The current trend towards consolidation of the North American cruise industry will increase. In 1986, the ten largest cruise lines controlled over 50% of the ships representing over 60% of the berth capacity. Most of the large cruise lines are European owned.

EXHIBIT V-6
Average length of cruises in North American market (1980-1987)

Cruise Duration	1980	1987
1-5 days	24.3%	32.8%
6-8 days	59.2%	54.8%
9-17 days	15.4%	11.6%
18 days and over	1.1%	0.8%
Weighted Average (days)	7.1 days	6.5 days

Source: Tourism Canada; Profile of the Eastern Canadian Cruise Industry, 1988

The ten year outlook for cruising in North America is very positive. It is estimated that only 5% (15 million) of North Americans have ever taken a cruise therefore considerable potential for increased market penetration exists. Cruises have the highest satisfaction level of all types of vacations with 88% of cruisers very or extremely satisfied with the experience, (CLIA, 1986). Add to this the simple convenient nature of the packaged cruise with all meals, accommodation and transportation, and you have a strong market offering. A survey of 4,000 travel agents reported an increasing interest in cruising and the industry spent over $200 million in North American advertising last year. Two other factors reinforce the strong outlook for cruises: firstly cruises are the most profitable product for travel agents and this is critical since 95% of all cruises are presently sold by travel agents; secondly, the long term demographic shift of an aging population ensures more interest in the cruise experience.

C. SIGNIFICANT AMERICAN MARKET COULD ENJOY THE CRUISE/FERRY CONCEPT

In assessing the potential usage level of the Cruise/ferry link by Eastern Seaboard residents, we analyzed the results of the omnibus Simmons Survey conducted by Donnelley Marketing Services. The Simmons Survey uses a socio-economic/demographic clustering system which segments the population of the U.S. into 47 distinct market groups. Background information on the Simmons Survey is located in Appendix D.

These 47 market groups represent a very comprehensive way in which to view a market. Obviously two persons with the same age and education could have completely different incomes and therefore different spending and travel habits. Or, two persons could have the same age, education,and income, but one person may have no children and the other four, resulting in very different spending habits and propensity to travel. The 47 market cluster system uses a wide range of socio-economic and demographic variables, allowing a precise definition of target markets.

In analyzing the potential market for the Cruise/ferry link, we accessed the data base constructed from the Simmons Survey results with the aim of determining the type of households with a high propensity to travel to Canada. We also determined the household types which most frequently use boats or ships as a mode of transportation while on vacation.

In determining the potential U.S. market, we estimated both a primary potential and a secondary potential market. The primary potential market has a high propensity for travel to Canada and a high propensity to incorporate water-based modes of travel into their vacations. The secondary potential market has a lower, but still above average propensity to travel to Canada and an above average propensity to use water-based modes of travel during their vacation.

1. The primary market

As mentioned previously, the primary potential market exhibits the highest use of water-based modes of travel in their vacations.

The primary potential group is comprised of four out of the 47 American market segments. Each of these four groups has a penetration score of over 1.8 in terms of travel to Canada. This means the segments' contribution to the population of households which travel to Canada is over 1.8 times higher than their contribution to the population in general.

A brief description of each of these four clusters and the accompanying penetration score follows:

- Suburban families with teens. Members of this group enjoy high incomes. They tend to be college educated and professionally employed. Their purchase preferences lean toward luxury items, quality clothing, and entertainment events. Their penetration score with respect to travel to Canada is 2.24.

- The established wealthy. This group is highly educated and is comprised of the highest income professionals. These individuals are likely to reside in very high value homes in prime real estate areas. The penetration score for this cluster with respect to travel to Canada is 2.19.

- Established affluents with teenagers. This group is approaching the empty nest phase in the life cycle. These individuals reside in stable, up-scale communities of affluent professionals. This group enjoys high incomes but have shifted their focus from child-rearing to college educations for their young and retirement preparation for themselves. This group enjoys high quality items, particularly clothing and home furnishings and indulges themselves in other luxuries which their increased discretionary income permits -- such as foreign travel. This segment's penetration score for Canadian travel is 1.93.

- The mobile wealthy. These individuals have procured the "good life" for themselves and their children. They are well educated, high income professionals living in high value homes in prime real estate areas. Members of this group tend to have memberships in golf, racquetball and health clubs, and enjoy shopping at gourmet or health food stores. This group can be described as sophisticated and well-informed. Their penetration score with respect to Canadian travel is 1.81.

On average, the above four member groups of the primary potential group receive the highest penetration score for utilizing water-based modes of transportation during their vacations, at 1.96. Exhibit V-7 summarizes the key demographic characteristics of the primary market.

Based on their frequency of travel to Canada, we estimate the size of this group to be 14,812 households or 44,114 individuals in the state of Massachusetts. In the state of New York, this market is estimated at 34,559 households or 103,541 individuals.

EXHIBIT V-7
Primary market profile

	Median Household Income	Median Age	Education Level
Massachusetts	$51,681	44.2 years	40.8%
New York	$52,974	44.9 years	42.4%

Leisure pursuits of this primary market include:

Frequent foreign travel
Tennis
Frequent domestic travel
Golf
Snow skiing
Gourmet food shopping
Racquet ball
Visiting theme restaurants
Cycling.
Jogging.
Live theatre/concerts.
Camping
Photography

2. The secondary market

The secondary potential market is made up of market groups which have a moderately high propensity for travel to Canada and a moderately high to high propensity to incorporate water-based modes of travel into their vacations. Each of these groups possesses a penetration score of between 1.2 and 1.8 in terms of travel to Canada and must

possess a score of at least 1.2 in terms of using water-based transportation on their vacations.

A brief description of each of the members of the secondary potential group and their accompanying penetration scores for travel to Canada follows:

- Urban homeowners earning above average incomes. These white collar empty nesters have the responsibilities of child rearing behind them and with retirement approaching, enjoy a wide range of leisure and sporting activities. Their penetration score with respect to travel to Canada is 1.55.

- Older families with teens, and post-child couples earning above average income in white collar occupations. This group, also on the brink of becoming empty nesters, also indulges itself with foreign travel, imported cars, and household improvements. This group's penetration score is 1.39.

- Urban working couples with children. These families possess average education and earn above average incomes. These working couples, faced with the dual responsibilities of young families and career, are likely to place high value on products which incorporate quality and convenience. Family activities are emphasized, including camping, skiing, and other outdoor activities. This group's penetration score is 1.38.

- Young affluents with children. Residents of this group enjoy high incomes and new high value homes. These young mobile professionals focus a great deal on their homes and young families, as well as their careers. This group enjoys travel, home improvements, and spectator and participating sports. The penetration rate for this group is 1.33.

- Up-scale professionals. Members of this group are often single and live in high priced urban and suburban apartments and condominiums. This group leads an active lifestyle including sporting activities, travel, and a high propensity to consume entertainment products of all kinds. This group tends to be aware of the newest trends and technologies, and indulges their taste for the new and different in diverse areas. Their penetration score relevant to travel to Canada is 1.28.

- Non-urban working couples with children. Residents of this cluster are in a "full nest" lifestyle. Earning above average income and living in homes built in the 1960's and 1970's, these individuals are focused on the home and families. The penetration score for this group is at 1.26.

- Older, white collar homeowners. These individuals are members of the established upper-middle class of small town overview. These families of above average income tend to reside in stable, empty nest neighbourhoods. Their penetration score with respect to travel to Canada is 1.26.

The penetration score for each of the above groups with respect to use of water-based transportation modes is between 1.28 and 1.50.

The estimated size of this secondary potential market is 77,800 households or 193,852 individuals in the state of New York and 30,229 households or 81,385 individuals residing in Massachusetts. Exhibit V-8 summarizes the number of households in both the primary and secondary segments of the two key states.

The most often pursued leisure activity of the secondary potential market include:

Foreign travel
Snow skiing
Golf
Racquetball
Camping
Tennis
Cycling
Attending baseball games
Domestic travel
Attending horse racing
Photography
Live theatre/concerts
Attending pro-sports events
Boating
Jogging

EXHIBIT V-8
Number of individuals in key segments:
New York and Massachusetts

	Primary	Secondary	Total
Massachusetts	44,114	81,385	125,499
New York	103,541	193,852	297,393
TOTAL	147,655	275,237	422,892

Source: Simmon's Survey Database, 1989

D. NOVA SCOTIA HAS ITS OWN GET-AWAY MARKET

Data on Canadian get-away vacation intentions is only just beginning to be collected and reported by the Canadian Tourism Research Institute. Statistics are preliminary and the sample size small, additionally the Maritimes are reported as one group. In the 1989, 2nd Quarter Consumer Travel Intentions Survey, 30% of Maritimers indicated they took a short duration, get-away vacation in the first half of 1989, travelling over 200 kms by car (74.1% by car, 11.1% by air). In next six months (July to December, 1989), 49.4% indicated they will be going on a get-way break.

The characteristics of get-away travellers as presented in the draft report are:

Upscale
Affluent
Older
Professional
Urban

In Nova Scotia the 1986 census defined 295,800 households (an average of 3.2 persons per household) with 37% of these households residing in the Halifax Census Metropolitan Area (CMA). The Halifax CMA composition by lifestyle segments is:

Upscale	14.8%.
Upper Middle Class	24.5%.
Young couples/no children	7.0%
TOTAL	46.3% of N.S. Households

This difference between the 37% of households in Nova Scotia located in the Halifax CMA and the 46.3% of upscale households in Nova Scotia located in Halifax CMA clearly indicates that the Halifax CMA represents a more affluent and upscale market than the remainder of Nova Scotia.

The Nova Scotian travel market was already overviewed. Taking the number of out-of-province trips and applying the data of the April, 1989, Consumer Travel Intentions Survey, the following derives the Nova Scotian potential market:

612,000 - N.S. travel out of province
15.7% destination USA = 96,084
63.5% travel for pleasure
PLUS
20.5% travel to VFR = 80,710 person trips

This number of 80,710 person trips by Nova Scotians to the USA for pleasure and to visit friends and relatives represents the current market with a high propensity to travel to the USA. There is no statistic available which indicates water travel intention as a part of

vacation plans, but the 46.3% of the Halifax CMA applied to the person trips number provides an estimate of 37,369 person trips in the Halifax CMA taken by the upscale segments. Given the propensity to get-away vacations is clearly highest in this upscale segment, our best estimate of the size of the Nova Scotia market potential would be from 30% or 11,210 person trips to 50% or 18,680 person trips from the Halifax CMA. This range represents our estimate of the primary market potential for Nova Scotia.

The secondary market potential is estimated by taking the remaining 43,341 person trips to the USA made by Nova Scotians either in lower income groups, or upscale groups outside of Halifax CMA, and applying the percentage of the overall Nova Scotia market in the upscale and upper-middle class segments (this can only be derived by estimation and is 9.4% upscale and 26.3% for the upper-middle class based on: Canadian Markets; 1988 The Financial Post Information Services). Applying these percentages to those with a propensity to travel to the USA gives person trips in the upper middle class segment. Again, the propensity to get-away vacations of 30% and 50% is applied to the total of 15,474 person trip to give a secondary market potential range of 4,642 person trips to 7,737 person trips. The low end estimates of both primary and secondary market segments are summarized in Exhibit V-9.

EXHIBIT V-9
Number of individuals in key segments of Nova Scotia

Primary low end estimate	Secondary	Total
11,210 person trips	4,642	15,852 person trips

Source: Authors estimates

E. BOTH AMERICANS AND CANADIANS SAY THE CONCEPT HAS APPEAL

1. Six focus groups were conducted

Focus group sessions were conducted by Omnifacts Research Ltd., in Halifax/Dartmouth, Burlington, Massachusetts, and Maramus, New Jersey. Two sessions were held in each location with a total of fifty-eight participants. The pre-screening process assured that participants had taken at least one, three-day vacation outside their state or province in the past two years. In addition participants had incomes above $25,000 per year. As vacation patterns were expected to vary with age, a younger group (20-39) and an older (40-60) was recruited for each location.

2. General vacation patterns

The vacation habits of the participants were first explored. The range of get-away vacations was high with between three and six short vacations taken each year. Typically, these would be driving holidays over an extended weekend to a nearby destination. The groups in general indicated that their lifestyles dictated short trips and some participants expressed preference for these shorter trips. These people did not all take short trips to the exclusion of a longer vacation. Driving dominated shorter vacations and destinations for some of the American participants included Canada and Nova Scotia.

3. Preliminary interest in the Cruise/ferry concept

The concept of a Cruise/ferry service was described using slides and brochures to give participants an impression of the quality and features of typical Cruise/ferry offerings. Without any discussion of price or specific destinations participants recorded a general interest level on a scale from +3 (very interested) to -3 (very uninterested). The average ratings are presented in Exhibit V-10. Ratings of interest level at this very preliminary point in the focus groups was high in Nova Scotia and Massachusetts and lower in New York, but still positive. Most participants felt they would use the cruise as a mini-vacation for a three or four day get-away. A few participants in each group saw using the service as a kick-off to a longer vacation.

EXHIBIT V-10
Cruise/ferry concept focus group average interest scores

	Average Ratings	
Location	Group 1 (under 40 years)	Group 2 (over 40 years)
Nova Scotia	+2.1	+2.1
Massachusetts	+2.2	+1.9
New York	+0.2	+1.2

4. Expected services and amenities

Participants explored the services and amenities that they would expect on a Cruise/ferry designed for a 20-24 hour one-way trip. The responses across all six groups were very consistent and included:

- Fine dining.
- Lounges and entertainment.

- Dining options including buffet.
- Swimming and health club facilities.
- Cabins
- Duty free shopping.

The participants clearly wanted a high level of service and quality in the entire experience. The ability of the crew to speak English and the safety of the vessel were raised by some, while others focused on enjoyment and relaxation as key factors. Because of the groups composition, little mention was made of business facilities and services for meetings. Discussion on the inclusion of children led to several more expected services including:

- Babysitting.
- Video arcade.
- Supervised play area.

Participants then selected the two services they felt most critical to the service and the vast majority identified fine dining and entertainment as the key features of the service.

5. Expected prices onboard

Expected prices for many of these services were briefly discussed in each group. Most participants expected the service to be priced like a cruise - one fee for transportation, cabin, and meals. Individuals expected to pay for drinks, shopping and casino, but for little else. When pressed for expected dining prices, people offered a range of $20.00 to $50.00 per person for fine dining. Buffet brunches were expected to cost $10.00 - $15.00.

6. Destinations and schedules

Towards the end of each session, participants were asked about the importance of the destination. For some people, the trip was the vacation and destination was relatively unimportant. As one person noted "It's a vacation on the water". However, for most people, the destination was at least somewhat important because they plan to spend a day in port at that destination. "Your party is on board but you don't want to get off at an empty wharf."

Most participants were looking for a destination with various forms of entertainment (museums, sightseeing, theatre), shopping and a variety of dining experiences. One group member summed it up by saying, "If it's a fair size city it's no big deal." Of the two possible ports in Nova Scotia, everyone opted for Halifax over Yarmouth. There was also interest in organized activities in port.

As for a departure point, almost everyone chose the port closest to their home. Only a few people in any group were willing to drive even a relatively short two to

three hours to get to a nearby port of departure. "You don't want to start the trip with a two to three hour drive ... you waste the day."

Most interest was expressed in extended weekend trips. People wanted to depart Thursday evening or Friday morning for a long weekend. Almost everyone expected a round trip as most people anticipated leaving their cars at the departure point.

Some time was spent exploring the issue of length of time on-board. We wanted to ensure that the 23 or 24 hour trips would not become tedious. Almost everyone felt with the number of activities available a full-day trip would not be any problem. Those who were concerned about the length of trip tended to be less interested in the concept anyway.

Most of the conversation assumed a round trip between two ports. However, in each group, there was some interest in more than one stop. For example, some of the New York participants liked the idea of a New York to Boston to Halifax and return trip. It would not be necessary to have a long stop in each port, but some people felt multiple stops would enhance the trip.

7. Route selection and trip price

Near the end of each focus group session a more detailed picture of four possible scenarios for a Cruise/ferry service were presented. The scenarios varied only in port selection with various combinations of Halifax and Yarmouth with Boston, New London, New York, and Newport. Once the participants selected a route they rated their interest in the Cruise/ferry service as described in some detail (size of vessel, services, price). With two exceptions of the 58 participants, the majority chose Halifax and the American city nearest their home, while Canadian participants were equally attracted to Boston and New York as destinations.

When asked to rate their interest on a scale from very interested to no interest, the ratings dropped slightly from the earlier ratings of the general concept in the Halifax and Massachusetts groups, and dropped significantly in the New York groups. On probing, price was now of more importance in determining overall interest levels. For some people the trip seemed expensive on its own, but when they realized that meals were not included in the price given with the scenarios, some people lost interest altogether. Particularly with cruises, participants seemed to expect an all-inclusive price. In the preliminary concepts adult one way fares were expressed as in the range of $125 to $200 US, high season, with one way car fares in the range of $75 - $95 US (not including meals).

8. Other issues in the focus groups

Participants expressed the desire to arrive in destination ports in the morning so that a full day in port was available.

When asked about ticket purchase, most participants indicated a desire to deal with a travel agent.

9. Overall focus group conclusions

Based on the six focus groups general interest was high in Nova Scotia and Massachusetts, but not as high in New York. Most people felt they would use the Cruise/ferry service for a get-away three or four day vacation, and would not take their car.

Fine dining and various types of entertainment are the critical services to include on the cruise. However, people are looking for a variety of different activities for a service such as the proposed one so most, if not all, of the following should also be included: dining, exercise facilities including a pool, movies, lounges, a casino, deck activities, duty-free shopping, a beauty salon and tourist information. Most people felt children should be included (not adult only) which led to suggestions for video arcades, a supervised children's area and babysitting services. It is important that children's activities are supervised so that they do not disturb other passengers.

Serious consideration should be given to offering package plans with meals. Different ticket prices could correspond to different levels of meal service. People generally expect a cruise to include food and it becomes a serious negative when it does not.

Business facilities were generally not of interest to most group participants but should be included since a significant number of people in each group felt the idea could be practical for conferences and working meetings.

Limited car space is required on the ship as most people felt they would not bring cars for the short trips they planned. However, because of this, round trips (leave from and return to the same location) are crucial.

The group members wanted a major center for a final destination that offered sightseeing, dining and museums as well as other activities. There was also interest in organized activities (as options) once port was reached. Halifax was chosen by all but two group members in the U.S. and Canada. There was some interest in more than one stop enroute to the final destination. Some people felt this would add greater interest to the trip.

Greatest interest in the concept, once it was described in final form, came from Nova Scotia and Massachusetts. A Boston-Halifax route is suggested because there was considerably lower interest levels in New York. Nova Scotia participants were split between Boston and New York.

There was some concern, particularly in the New York groups, regarding the suggested pricing for the trip. Obviously a lower price will stimulate more demand but, even if prices have to be increased to include meals, this should be done before the service is launched.

Schedules should be finalized to allow as much time as possible at the final destination for shopping and sightseeing no matter which direction the ship is heading. The departures during the high season for Concept 1 were favourably received.

Finally, people expect to book tickets through a travel agent and feel that reservations and deposits should be similar to those with airline reservations.

F. TRAVEL AGENTS AND PLANNERS SUPPORT THE CONCEPT

A broad selection of knowledgeable cruise planners and travel agents, bus tour operators, and meeting planners, were interviewed. The firms and individuals contacted are listed in Appendix E.

1. Cruise planners/travel agents

a) Cruise planners

Most cruise planners were intrigued by the concept of a Cruise/ferry service operating from the Eastern seaboard to Nova Scotia. Generally they felt the concept would appeal to a more up-scale market, slightly older and families. The appeal would be strongest among those who do not like to fly or drive. They liked the new destination of Nova Scotia, but felt that consumer recognition of Nova Scotia as a cruise or get-away destination would require a significant investment in advertising to create consumer awareness. When people think of Cruises, they think Caribbean, Europe, or Alaska, not Nova Scotia. On the positive side the view was expressed that a new destination that was close to home, yet different could have strong appeal.

Although Boston was seen by these agents as a good destination from a tourist point-of-view, they expressed reservations about Boston as a port because of the high port charges. The service was definitely seen as only a late May to mid-October service. The proposed price range of $120-$250 US per day was not seen as a barrier, but they did recommend that the price include meals and that special packages be developed for seniors, families and round trips. The opinion was expressed that the service not try to compete with luxury cruises. On-board the agents wanted to see a service which included gambling, entertainment, and duty-free shopping. Many expressed the view that more than one stop would be attractive.

The idea of get-away trips with a couple of days in Halifax was very positively viewed by the cruise agents. One reason is their fees on a one-way ticket would be small, but a get-away package would give them a reasonable fee. They felt older (over 50) cruisers would not be attracted to the idea, but younger clients should find the idea attractive.

The negative comments of cruise agents and planners focused on two points. First was the weather in the proposed travel area and the possible impact of one or two bad voyages on other potential travellers. Word travels quickly in the cruise industry and the impact of one or two bad trips could deaden the whole venture. For this reason, none of the cruise planners saw service past early October as feasible. The second negative focused on the poor visibility of Nova Scotia as a destination in some areas of the eastern USA. Unless significant marketing efforts both in the public and to the cruise agents took place, the concept could be a difficult sell.

b) Other travel agents

Local travel agents expressed mixed reactions to the potential of a Cruise/ferry service. The idea was seen as having merit and potential from a Nova Scotian perspective but concerns were raised about the potential impact on existing services, the lack of a large market base in Nova Scotia and the need for strong marketing combined with reasonable prices. The Boston-Halifax route was seen as having the greatest potential, with the view that New London-Halifax would not be a workable combination.

These local travel agents felt the concept could attract potential customers from a wide spectrum of the travelling public: families, first-time, and mature cruisers, and those looking for a get-away break. They felt there would be a strong market for the gambling and party atmosphere, but the concept of using the service for business meetings would prove a difficult sell.

The view was pressed that the service should be marketed as a good start to a vacation touring Nova Scotia and built into bus tours and packages. The price range was seen as reasonable. The physical features of the service should be pleasant, up-to-date with good food (included in the ticket price), good staff, and entertainment and gambling. The service was seen as seasonal, probably a June to mid-October range.

General travel agents in New England were not directly surveyed for this study. A survey conducted by Maritime Transatlantic of 200 general travel agents in the greater New York area to explore interest in a Car/Passenger Ferry Service between Halifax and New London did have a positive response. (Source: Maritime Transatlantic Limited Report: 30 December, 1988). The positive response was very general in nature, reflecting interest in the concept. Of the 98 responses received, 65 indicated a favourable opinion towards the proposed service.

2. Tour bus operators

U.S. based tour bus operators were interviewed. In general, reaction to the concept was positive, but tentative. Reservations about the proposed service focused on price, time, and potential bad weather problems.

The majority of tour bus operators indicated a positive interest in the Cruise/ferry service, particularly if it was priced to be competitive with alternatives; be it the price of flying groups into Halifax to begin a tour or the price equivalent of outgoing costs

of Scotia Prince plus accommodation in Yarmouth or Portland. The Cruise/ferry service would have to be competitive, costing less than combined road, overnight and existing ferry service. The largest segment served by these operators is not upscale, older and cost conscious, leaving a small segment of more upscale tour bus travellers for whom the trip would have a strong appeal.

Time reservations focused on the 20 hour trip duration versus a shorter 11 hour trip Portland/Yarmouth. Bus tours using the longer Newfoundland routes have had complaints about the length of trip and feel this concept would only be viable for one leg of the bus tour, most likely on the return to the USA. In addition, several longer two week tours are being reduced in length and the extra time involved in a Cruise/ferry service would not be attractive.

Weather concerns focused on the complaints these operators currently receive on existing services. The majority of bus tour operators hesitated to indicate a strong positive endorsement of any concept, preferring to express guarded interest on a trial basis. A few operators expressed strong positive interest as either an alternative feature to existing Yarmouth departures or as a replacement for that service. One or two thought special packages could be developed exclusively around the concept.

3. Meeting planners/trainers

Both business meeting/convention planners and trainers were interviewed. In general the concept of a Cruise/ferry has some limited appeal for the conventions/ meetings market, but it was not seen as viable for training.

In the local training market the public sector expressed the view that such a service would not be appropriate to the public service image. In addition there is a concentrated effort to move away from hotels and lodges into Community Colleges as a way to reduce training/meeting costs. This combination of public scrutiny and cost reduction make it unlikely that the Cruise/ferry concept would have any initial appeal in this training segment.

Comments by private sector convention planners were not much more favourable, with the exception of one private industry contact who had experience with the European ferry/cruise services currently in operation. Negative or neutral comments focused on the issues of price, possible lack of meeting facilities, distraction the participants might have from other passengers, and the ability to handle a large group. An additional comment was that most inbound conventions and meetings look at Halifax as the attraction to their participants. As such, the attraction of a short Cruise/ferry trip was seen as minimal.

G. ADDITIONAL REVENUE OPPORTUNITIES WERE EXPLORED

The possibility of generating revenue from the movement of freight between Halifax and New England was explored. Currently the major service between Halifax and Boston is operated by UM Shipping (Canada) Ltd. This line moves containerized cargo only as a feeder line between Halifax and Boston. It operates on a one trip-per-week schedule and currently handles an average of 250 boxes a week, or 125 each way. Operators estimate the service is at 85-90% capacity on average and has reached capacity on several occasions. (Source: UM Shipping (Canada) Ltd.).

The movement of fish and other fresh products by truck from Nova Scotia to New England markets currently occurs by road or ferry (particularly the MV Bluenose), Yarmouth to Bar Harbor. The services provided by truck transport are responding to the market needs of:

- Just-in-time deliveries.
- Fresh produce requirements.
- Effective cost.
- Vessel scheduling.

The Atlantic Province's Trucking Association expressed the view that a Cruise/ferry vessel on a limited schedule would not be attractive to their members because of the above factors. The only freight possibility uncovered was that of a shipper sending a large volume, such as a container of non-time-critical cargo, that could be warehoused at either end for collection.

Given the existing capacity to move containerized freight from Halifax to Boston and the lack of interest in the service by trucking groups, the possibility of generating additional revenue from freight service was seen as minor and was not included as a factor in our analysis.

H. MARKET CAPACITY APPEARS TO EXIST FOR AN ADDITIONAL SERVICE

Interest in the concept of a Cruise/ferry service operating between Nova Scotia and New England is clearly present both in tourists and the travel industry. The growing interest in cruising, the pressure for shorter, get-away breaks, the interest in real but different holiday experiences, all of these contribute to the market potential for a new service. In addition, the growing use of existing ferry services emphasizes this trend toward water access playing a more important role in tourist visits to Nova Scotia in the future.

Given all of these factors our estimates of the potential primary market with a strong interest in the service are considered mainly as a new segment of travel consumers who would not have necessarily travelled to Nova Scotia on a longer vacation, but would take a shorter get-away Cruise/ferry trip with Nova Scotia as the destination. The group tends to be more affluent, older and an experienced travel consumer. Our data indicate this group is large, with 147,655 persons in New York and Massachusetts alone. Other similar travel consumers may be attracted from further away. However, the points of origin of the Cruise/ferry service appear to be one critical factor in interest level. Service should focus on travel between major urban destinations. This factor has been essential to success in existing Cruise/ferry operations and was seen as important by participants in the focus groups.

All of these factors lead to the conclusion that a Cruise/ferry service will appeal to a large segment of travellers, both in the United States and Nova Scotia, and that, by-the-large, this would be a new travel segment not previously travelling to Nova Scotia.

VI

SEVERAL ROUTE SCENARIOS COULD MEET DEMAND

In this chapter we explore the possibilities of different routes, ships and services, and the suitability of potential ports. The many possible combinations of routes and ships are reduced by the criteria identified in Chapter III to only those that meet the key success factors. The preferred scenario is then used as the base for sensitivity analysis to explore the impact of various costs and parameters on ship operations and revenue. Pro forma balance sheets of the test cases clearly identify the parameters of vessel operations.

A. PRELIMINARY SCENARIOS

In developing preliminary route scenarios, an initial set of potential ports at each end of a Nova Scotia-US. East Coast Cruise/ferry route were identified. Possible ports are as follows:

- Nova Scotia: Yarmouth
  Halifax
  Sydney

- U.S. East Coast: Boston, Mass.
  Newport, RI
  New London, CT
  New York, NY
  Newark, NJ
  Baltimore, MD
  Norfolk, VA

These ports are illustrated in Exhibit VI-1.

A matrix of possible routes connecting the Nova Scotia ports with U.S. ports was constructed and the sailing distances calculated. For each potential route the time of crossing was calculated for various ship speeds corresponding to typical Cruise/ferry speeds. Exhibit VI-2 shows the results of these calculations.

1. Evaluation of Potential Routes

(a) Crossing times

Looking back on the characteristics of successful Cruise/ferry operations in Chapter III, recall that the most desirable crossing times are:

EXHIBIT VI-1
Ports considered in developing preliminary scenarios

10-12 hours.
15-16 hours.
20-24 hours.

Checking Exhibit VI-2, we find that it is not feasible to use Sydney, Nova Scotia, as an end port as the crossing times to any potential U.S. port are outside the range of successful Cruise/ferry operations. For this reason Sydney was not considered in further port evaluations. We also can conclude from Exhibit VI-2 that Baltimore and Norfolk are too far away from all Nova Scotia ports. They too have been eliminated from the list of potential ports.

EXHIBIT VI-2
Nova Scotia Cruise/Ferry Study
Distance and sailing times to potential Cruise/ferry ports

Canadian U.S. Port	Port	Distance N. Miles	Time @ 16 knts	Time @ 18 knts	Time @ 20 knts	Time @ 22 knts
Boston	Yarmouth	238	14.9	13.2	11.9	10.8
	Halifax	357	22.3	19.8	17.9	16.2
	Sydney	592	37.0	32.9	29.6	26.9
Newport R. I.	Yarmouth	297	18.6	16.5	14.9	13.5
	Halifax	410	25.6	22.8	20.5	18.6
	Sydney	590	36.9	32.8	29.5	26.8
New London	Yarmouth	338	21.1	18.8	16.9	15.4
	Halifax	449	28.1	24.9	22.5	20.4
	Sydney	768	48.0	42.7	38.4	34.9
Baltimore	Yarmouth	789	49.3	43.8	39.5	35.9
	Halifax	903	56.4	50.2	45.2	41.0
	Sydney	854	53.4	47.4	42.7	38.8
Norfolk	Yarmouth	644	40.3	35.8	32.2	29.3
	Halifax	758	47.4	42.1	37.9	34.5
	Sydney	993	62.1	55.2	49.7	45.1

Exhibit VI-3 lists the remaining ports for which feasible crossing times exist. The most preferred crossing time (as determined from Chapter III) and the service speeds required to realize these times are highlighted in Exhibit VI-3, based on the following criteria:

10-12 hours crossing time
15-16 hour crossing time
20-24 hour crossing time

EXHIBIT VI-3
Nova Scotia Cruise Ferry Study
Distance and times to potential cruise ferry ports
Feasible crossing times are highlighted

U. S. Port	Canadian Port	Distance N. Miles	Time @ 16 knts	Time @ 18 knts	Time @ 20 knts	Time @ 22 knts
Boston	Yarmouth	238	14.9	13.2	11.9	10.8
	Halifax	357	22.3	19.8	17.9	16.2
Newport R. I.	Yarmouth	297	18.6	16.5	14.9	13.5
	Halifax	410	25.6	22.8	20.5	18.6
New London	Yarmouth	338	21.1	18.8	16.9	15.4
	Halifax	449	28.1	24.9	22.5	20.4
N. York/N. Jersey	Yarmouth	420	26.3	23.3	21.0	19.1
	Halifax	533	33.3	29.6	26.7	24.2

2. Cruises between urban areas

In Chapter III we identified that most successful cruise ferries operate between two large urban centres. From this point of view, of the ports listed in Exhibit VI-3, Boston and New York would be the most desirable U.S. ports while Halifax would be the most suitable Nova Scotian port, while Sydney has been ruled out because of sailing time.

Some Cruise/ferry operators have been successful with a major centre at only one end of the route; however, none operate between two small port centres. For this reason, the lower population Newport-Yarmouth and New London-Yarmouth options have been eliminated from further study.

3. Base transportation

As indicated in Chapter III, successful Cruise/ferry operations rely on a transportation base load. Existing vehicle volume entering Yarmouth from Portland and Bar Harbor shows that 23% of the total passenger vehicle volume originates from Massachusetts alone, surpassing the combined total of New York and New Jersey. Massachusetts also accounts for 21% of all U.S. vehicles entering Digby from Saint John, New Brunswick. It is clear that Massachusetts is the primary source of vehicle traffic to Nova Scotia from the Northeastern United States.

This indicates that Boston would be the preferred U.S. departure port as compared to New York from a base vehicle volume point of view. It should be noted, however, that a Boston base has greater potential than a New York base to erode existing services.

From this first investigation, and based on characteristics of other successful Cruise/ferry operations, five preliminary service concepts were identified. These are listed below in order of preference.

Route	Sailing Time (hours)	Speed (knots)
Boston-Halifax (long)	20-22	16-18
Boston-Halifax (short)	15-16	22-24
New York-Halifax	24	22-24
Boston-Yarmouth	10-12	20-22
New London-Halifax	20-23	20-22

A detailed description of each scenario and an accompanying fact sheet appear in Appendix F.

B. PORT SUITABILITY

With these preliminary route scenarios established, a study of port services was conducted in order to determine what infrastructure would be required at each potential port location in order to suitably handle a new Cruise/ferry service. The ports that were studied were Boston, New York, New London, Halifax, and Yarmouth. Appendix G contains summary reports of our contact with various port and customs authorities, while Appendix H contains some background information on each of the ports.

1. Yarmouth

(a) Wharfage: There is an existing Ro-Ro ferry wharf in Yarmouth, owned and operated by Marine Atlantic. This facility is used by Marine Atlantic's "Bluenose" for service to
. It is also used under a lease agreement by Prince of Fundy Cruises' "Scotia Prince" for service to Portland, Maine.

(b) Terminal facilities: Marine Atlantic owns and operates a passenger and vehicle terminal that effectively processes up to 1000 passengers and 300 vehicles from the vessels, "Bluenose" and "Scotia Prince".

(c) Bunkering facilities and other ship services: All facilities necessary for refuelling and provisioning a Cruise/ferry vessel are in place because of the existing services.

(d) Stevedoring: The existing Yarmouth ship services operate with no stevedoring union commitments. It is unclear whether a new service would be required to use stevedoring services.

(e) Rates and tariffs: There are no harbour dues or other related rates and tariffs applied at the existing Marine Atlantic terminal facility. Any costs for a new operator would be addressed in the lease agreement with Marine Atlantic.

(f) Customs services: The Marine Atlantic terminal has a large Canadian customs and immigration facility. It operates much like a regular highway border crossing. The facilities are provided by Marine Atlantic while personnel are supplied by Canada Customs. Up to 20 officers can be employed during the busiest summer season. These officers also handle air passengers at Yarmouth Airport. To incorporate a new marine service, the present facilities would have to be upgraded and extended. The schedule would also have to work around existing services.

(g) Required infrastructure: Minimal upgrading of terminal and customs area.

2. Halifax

(a) Wharfage: There are few, if any, wharfage facilities available for permanent use by a regular ferry service. Halifax Port Corporation operate most available wharfage in the port and are presently land poor. The container business is growing and needs any available land. There is one Port Corporation berth on Lower Water Street that could be dedicated to ferry use; however, it has no facilities and traffic loading would be a problem.

Some cruise ships call in at Terminal A1, Pier 30 and Pier 34 (see Appendix F) when cargo ship traffic is low. However, the HPC would not be willing to allow a regular Cruise/ferry service to stop there unless it was guaranteed to generate as much income for the port as the displaced cargo traffic.

The Waterfront Development Corporation Limited (WDCL) owns large undeveloped parcels of land on the Dartmouth and Halifax waterfront. However, most of this land is high-priced and earmarked for residential and business real estate development.

Another potential site is the Woodside Atlantic Wharf in Dartmouth. This is a provincially owned facility operated by the Business Capital Corporation.

New land could be built using land fill for $1.5 million per acre.

(b) Terminal facilities and infrastructure: There is no passenger ship terminal facility in existence in Halifax. Any new Cruise/ferry operation would have to construct a new facility to effectively process passengers and vehicles. None of the property owners (HPC, WDCL, or the BCC) are prepared to carry these costs; therefore the operator would have to finance the costs himself. The issue of how these facilities are provided will require discussions at several different levels of government. The creation of these services has potential net benefit to all sectors, and, in the event a Cruise/ferry service falters, these facilities could be used to service the growing East Coast cruise industry. Halifax would be a more attractive cruise port if it had modern, efficient passenger terminal facilities.

Parking and vehicle loading areas are a problem for the HPC sites. These sites do not have the capability to handle large volumes of traffic. The Woodside Atlantic Wharf, while being across the harbour from Halifax, is right beside the new Halifax-Dartmouth ferry terminal which offers regular convenient passenger service to downtown Halifax. There is also good highway access here and ample room for vehicle loading and unloading. However, there is no Ro-Ro ramp at present and therefore some initial cost in setting up a floating link ramp would be required (see Exhibit VI-4 and VI-5).

(c) Bunkering and other services: As Halifax is a major East Coast seaport, there is excellent fuel service available as well as all other required marine services.

(d) Stevedoring: All Halifax Port Corporation lands are within the International Longshoremen's Association (ILA) jurisdiction. Therefore, all duties performed in port would be carried out by union personnel. Under the union control, the unions have jurisdiction over luggage transfer on passenger vessels as well as loading and unloading of cars. At worst, this may require union personnel to drive cars on and off the ship. At best, a crew of eight union staff would supervise the loading and unloading of cars. This could prove to be very expensive.

It may not be necessary to use union personnel on non-HPC lands (i.e. WDCL land or Woodside Atlantic Wharf). It is unclear as to the union's jurisdiction in these cases.

It is recommended that the operator hire a professional union negotiator to lobby the ILA and the Maritime Workers' Organization to clear up the interpretations of union duties and jurisdiction well before starting up a new Cruise/ferry service. This is a key stumbling block in any potential passenger vessel operation in the Port of Halifax and should not be underestimated in importance.

(e) Rates and tariff: For a ship operating from HPC berths, the rates and tariffs are as described in Appendix F. Harbour dues are $0.0456 per GRT while passenger tariffs are $6.00 per adult, $3.00 per child, and $8.00 per vehicle. On non-HPC lands only the harbour dues would apply.

These passenger/vehicle tariffs are quite high compared to U.S. ports and would make it very attractive to find a non-HPC docking site.

(f) Pilotage, tugs, etc.: It is possible that a pilot may be required for in/out privileges to the harbour; however, for a suitable ship and master, an exemption could probably be granted.

Tugs would not be required, provided the ship had suitable bow and stern thruster capabilities.

(g) Customs services: At present there are only four customs officers on staff to service the Port of Halifax with no permanent waterfront facility. These officers work on a first-come, first-service basis as ships come into port, and only operate from 0800-2400 hours, seven days a week.

This system is entirely inadequate for a new Cruise/ferry service. As customs officers work on a cost recovery basis, any new operation would be required to carry the costs of building a customs facility and its staff and operating costs. This could be very costly and is another area where government assistance could be required. Customs in Halifax have done a report called "Vision 2000" that predicts the anticipated staffing requirements up to the year 2000. No mention is made of a permanent facility for passenger or passenger/vehicle services.

It is recommended that the operator meets with the Marine Advisory Committee to discuss the logistics and feasibility of obtaining the required infrastructure for a Cruise/ferry business.

3. New London

(a) Wharfage: There are two small ferry services with Ro-Ro docks operating near New London; however, these are extremely busy during the summer months and could not handle a large Cruise/ferry.

Potential Cruise/ferry dock sites include the State Pier operated by New London Terminal Company and the Admiralty Pier. The 1200 ft. long west side of the Admiralty Pier is open for development. There are no Ro-Ro facilities; however, a floating barge ram system has been used in the past with some success. The "Scotia Prince" has docked there before.

(b) Passenger terminal facilities: There is no terminal facility at the State Pier or the Admiralty Pier. These would have to be provided by the operator. However, there is a possibility that some level of U.S. Government assistance could be obtained.

EXHIBIT VI-4
Floating linkspan

FLOATING LINKSPANS

— flexible port facilities for ro/ro ships

In the Linkspan concept ro/ro ships are berthing at a pontoon that follows tidal variations of the waterlevel automatically. This construction is both simple and reliable. A "bridge" supported in one end by the pontoon and in the other by solid ground are *linking* the ro/ro ship with the terminal and *spanning* the distance out to deep water. The ship is held in position by "dolphins" or a quay.

Linkspan offers:

- flexibility
- easier, faster and often less expensive installation
- simple, reliable and flexible adaption to tidal variations and variations in the height of ro/ro decks.

While ordinary landbased rampsystems often will be less expensive when:

- traffic is reliable
- installations can be planned without haste
- quays are already there with sufficient depth
- tidal variations and variations in height of ro/ro decks are small compared to the flexibility of ro/ro ramps onboard the ship.

FAST DELIVERY

Semipermanent installations like a floating Linkspan will often cause less trouble with formalities and be easier approved by authorities.

As the Linkspan is a proven design, and as it is a small object for a shipyard, the construction time is short. And any shipyard with the right price and the necessary capacity can build the Linkspan, even quite a distance from the harbour.

Construction and connection of the Linkspan and installation of "dolphins" is much faster than the normal procedure of pre-studies design, dredging and construction of a wharf.

FLEXIBILITY

Sometimes investments in new harbour facilities for ferry and ro/ro traffic are wasted as the route is discontinued or moved to other ports. Investments in a floating Linkspan will be less risky as it can be sold and moved to other terminals.

In ports with large terminalareas for storage of containers, and few calls at the port the floating Linkspan can be moved from terminal to terminal thus replacing several fixed installations.

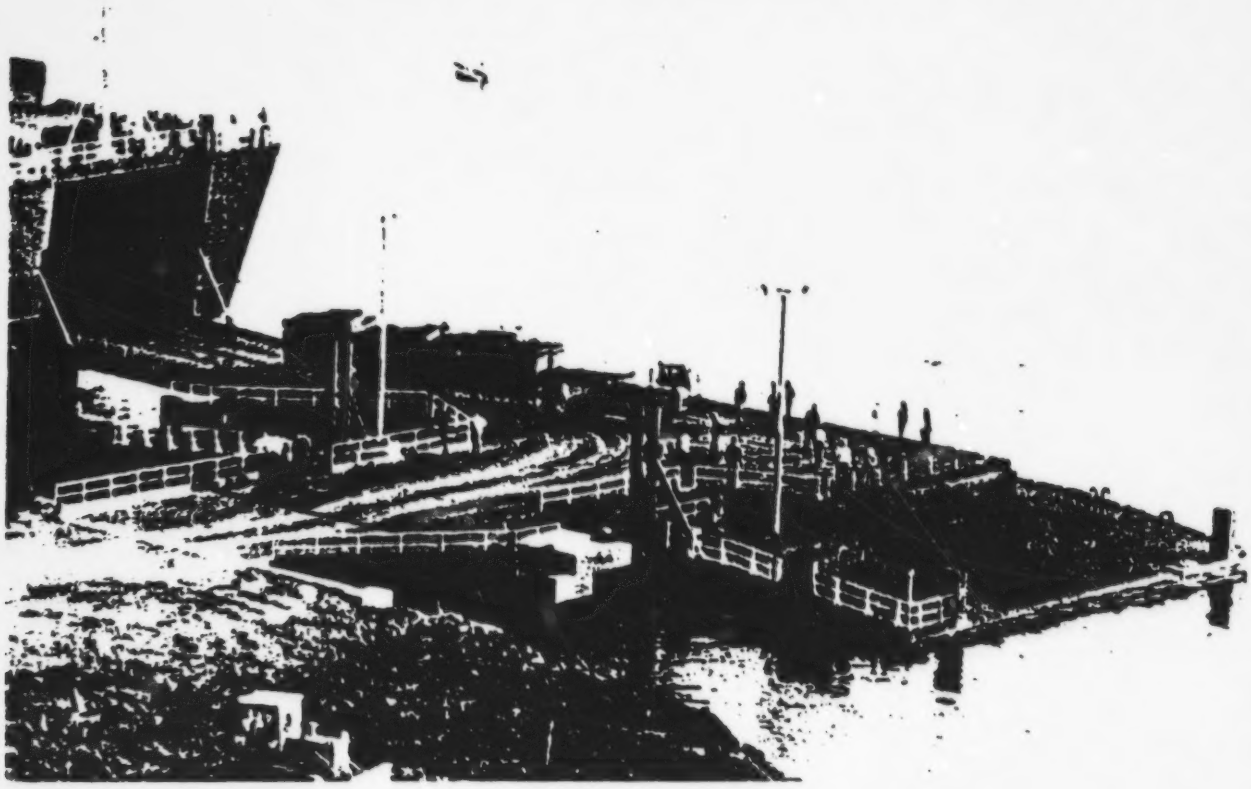
LOW COST OF FIXED INSTALLATIONS

In areas without available quays it will often be much less expensive to install a floating Linkspan and "dolphins" instead of designing, dredging for, and constructing a new wharf with ro/ro facilities. This will especially be the case in new harbours and harbours with a fast increasing traffic.

FINANCING

Linkspan can be financed in several ways as it can be considered a ship, a leasing investment, and a port facility, thus talking advantage of the best of those financial terms. Another financial advantage is that the floating Linkspan can be moved and resold at a resonaibe second hand value so the investors do not run the same risk as with fixed installations.

EXHIBIT VI-5
Floating linkspan installation



(c) Bunkering facilities and other ship services: Bunkering services and other services are available in New London; however, some upgrading may be necessary to handle the frequency of the ship coming to port.

(d) Stevedoring and other labour: There is no union labour at either the State Pier or the Admiralty Pier. The latter is staffed by off-duty Navy personnel at low cost to the operator.

(e) Rates and tariffs: Not available.

(f) Customs services: U.S. Customs services are on a ship arrival basis with no permanent facility. The secure, efficient customs area would be required to be constructed. There is plenty of area for parking and vehicle loading.

(g) Required infrastructure:

- floating Ro-Ro barge ramp
- passenger terminal facility
- customs area.

4. Boston, Massachusetts

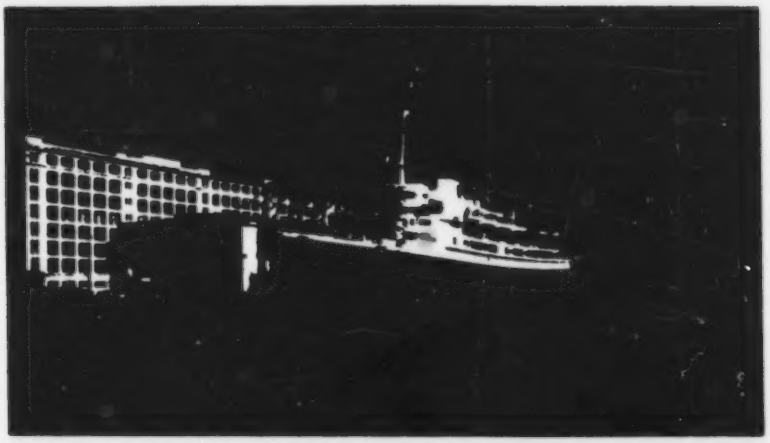
(a) Wharfage: The Port of Boston, operated by Massport, has recently opened the Black Falcon passenger cruise terminal (see Appendix H). It is capable of handling two large cruise ships simultaneously. At present there is no Ro-Ro capability; however, there is ample space available for a floating link ramp system and customs vehicle inspection area and vehicle handling area. This is really the only logical location in Boston for this service.

(b) Passenger terminal facilities: The Black Falcon Cruise Terminal is a modern facility offering all the amenities that today's cruise passengers require (Exhibit VI-6). Enclosed gangways are used to join the ship directly to the terminal. Full ticketing facilities, lounge areas, and customs and immigration facilities are set up for passengers already.

(c) Bunkering and other marine services: As Boston is a major port and the Cruise Terminal is set up for large cruise vessels, bunkering services and other marine services are all in place. Tugs and pilotage would not be required although the ship would have to have good maneuvering capabilities as the channel is not very wide.

(d) Stevedoring and other labour: Boston is a heavily unionized port; therefore, the ship would be required to use all union personnel while in port. This could be a problem as the labour costs can be extremely high for a Cruise/ferry which requires baggage handling, care unloading/loading supervision, fast cleaning services, etc. The ILA is very strong in Boston and a clear agreement should be made with them before any service is contemplated. Again, a professional union negotiator should be hired by the operator to investigate and resolve potential labour difficulties.

EXHIBIT VI-6
Black Falcon Cruise Terminal



BLACK FALCON CRUISE TERMINAL:

Cruise Gateway to New England

The Massachusetts Port Authority's (Massport's) Black Falcon Cruise Terminal welcomes the region's growing passenger ship traffic.

Located on Boston's waterfront, minutes from downtown attractions and Logan International Airport, this cruise facility offers all of the amenities that today's discerning traveler could require.

Built to comfortably handle two cruise vessels simultaneously, the Black Falcon Cruise Terminal embarks and disembarks passengers via an enclosed gangway joining the ship and the terminal.

A full range of services is available onsite, including passenger lounges, escalator and elevator access, luggage lockers, restrooms, weather-protected drop-off areas, a snack bar, public telephones, and secure long-term parking. The terminal also offers areas dedicated to ticketing, baggage claims, and customs inspection and checkpoints, as well as terminal administration, maintenance, and storage.

Massport, in addition to the Black Falcon Cruise Terminal, owns and operates a number of other transportation-related facilities, all committed to providing users with efficient and cost-effective service. These include Logan International Airport, the public cargo terminals of the Port of Boston, Hanscom Field, the Tobin Memorial Bridge, the Boston Fish Pier, and Commonwealth Pier, site of the World Trade Center Boston.

(e) Rates and tariffs: The relevant rates and tariffs in the Port of Boston are administered by Massport and include a $550/day berthage charge, a $3.15/passenger embarkation/disembarkation fee, as well as miscellaneous ship handling fees. These are small in comparison to labour charges.

(f) Customs facilities: The Black Falcon Terminal has a permanent customs and immigration hall in place, inside the terminal, for foot passengers. A customs and immigration area for vehicles does not exist; however, there is adequate space to build these facilities. Massport would cover the costs of construction provided the Cruise/ferry service could show it could work and would operate the several years.

(g) Required infrastructure:

- floating link Ro-Ro ramp or permanent dockage
- vehicle customs and immigration area
- labour negotiations

5. New York, N.Y.

(a) Wharfage: Berthing space is available at the New York Passenger Terminal. The terminal has three piers with the most northerly one having a Ro-Ro ramp. This stern loading ram was installed by the Port of New York for $5 million US, to accommodate the Cruise/ferry "Scandinavian" which was operated by DFDS from New York to the Bahamas.

(b) Passenger terminal facilities: The New York Passenger Terminal can load passengers and cars simultaneously. There is also a large car holding area near the Ro-Ro ramp. The facility is a modern passenger terminal with all the necessary amenities.

(c) Bunkering and other marine services: All marine services and bunkering capability are readily available in the Port of New York at the passenger terminal.

(d) Stevedoring and other labour: Like Boston, the Port of New York is under the jurisdiction of the ILA and therefore all shoreside services would be required to be carried out by union personnel.

(e) Rates and tariffs: No data received on these costs at present.

(f) Customs facilities: The passenger terminal is equipped with a large foot passenger customs and immigration facility. An area is available for vehicles and passengers. Customs, however, has not been used for several years and would need upgrading.

(g) Required infrastructure:

- upgraded vehicle customs area
- labour negotiations

6. Summary of port suitability

Exhibit VI-7 presents a summary of the port facilities and services.

EXHIBIT VI-7
Summary of port facilities and services

Port	Ro-Ro Ramp	Customs Area	Terminal Building	Available Land	Union Labour	Bunkering and Other Services
Halifax	No[1]	No	Yes	Maybe	Yes	Yes
Yarmouth	Yes	Yes	Yes	Yes	No	Yes
Boston	No	Yes[2]	Yes	Yes	Yes	Yes
New York	Yes	Yes	Yes	Yes	Yes	Yes
New London	No	No	No	Yes	No	Yes[3]

[1]Note: at a site feasible for a Cruise/ferry service.
[2]Passenger only
[3]Limited

From this summary we see that, from a marine operations point of view, Yarmouth exceeds Halifax in terms of existing facilities and services. It is clear that a great deal of work is required in Halifax in order to make it suitable for this type of Cruise/ferry operation. This will take a significant lead of time and should be carefully addressed by any potential operator.

For the U.S. ports, New York appears to have the most facilities and services in place although union labour costs could be a problem. Boston also offers a good existing infrastructure although a Ro-Ro ramp facility would have to be installed by Massport which would take time. Labour costs could again be a problem.

New London would offer the most economical alternative from a labour point of view (as it is non-union); however, considerable time and money would be required to complete the necessary terminal and customs facilities.

C. OFF-SEASON OPTIONS

All five of the potential service scenarios are run only up to six months of the year. Therefore, the ship would either be idle for the remaining six months or would have to find off-season duty in another location. Of course, increased utilization of a ship is always better from an economical point of view as ship depreciation is quite substantial. There are several options available; however, it is difficult to determine the viability of the operations as a detailed study would be required. The various options are described below with some general comments on each.

1. Caribbean Islands

The ship would be in direct competition with the existing mega-cruise ships operating there now. It would be a very difficult market to crack. There is no demand for a Cruise/ferry there although the ship could be used for passengers only (much like "Stardancer" is used on the Alaska route).

2. Australia-U.S.

The ship could be used for a long transit from the U.S. West Coast to Australia and return later. The key market would be large RV'S and their passengers. One potential problem is finding a ship capable of such a long voyage. Since this is a new idea and as such is untested, a thorough market study would be required. On arrival, it could participate in Option 3.

3. Australia and New Zealand

The ship could be operated in the southern hemisphere summer in Australia and New Zealand. In Australia it could supplement the service of the Cruise/ferry "Abel Tasman" which operates between mainland Australia and the island of Tasmania, during their busy season.

A large cruise route could be developed between Australian and New Zealand. Finally, a Cruise/ferry operation could operate between New Zealand's north and south islands, possibly between Wellington and Christchurch, Wellington and Queenstown, or Auckland and Christchurch. Again, a market study would be required to determine the feasibility of such operations although the concept appears appealing at first glance.

4. Singapore-Indonesia

This is a new, untested market; however, there may be potential there.

5. Mediterranean

The Mediterranean is already inundated with cruise ships of all kinds. It might be possible to join this market; however, like the Caribbean, it would be a tough job.

The most promising of these options is likely one of the Australia or New Zealand routes. It is recommended for any serious proposer of a service to look at this option as a possible off-season use of the vessel. Perhaps the Nova Scotia Government could work with the Australian or New Zealand Governments to study these possibilities further.

D. CREWING AND FLAG OPTIONS

The Canadian and U.S. cabotage laws make it almost mandatory that the vessel be foreign-flagged in order to be economically feasible. The duties and taxes imposed by the Canadian Government to register the ship as Canadian far outweigh any political advantages to having a Canadian-flagged ship. Both countries' laws require domestic labour if the ship is domestically flagged. This would increase on-board labour costs dramatically. This is especially true of the hotel and restaurant staff whose unions have negotiated working conditions that make them far more expensive than international non-union workers. In addition, due to working hour requirements, almost twice as many crew would be required on a domestically-flagged ship. This would affect the crewing quarters requirements of the ship greatly.

E. CAPITAL COST, OPERATING COST AND REVENUE ESTIMATES

For each scenario, the capital cost, operating cost, and revenues were estimated as closely as possible based on up-to-date information on the marine industry on the East Coast. In these detailed financial projections it is assumed that there is no financial aid from the Government.

1. Capital costs

(a) Ship costs: A market study was conducted of suitable ships of the type and size indicated earlier in Chapter III and with the required amenities. The results of this study indicate that a suitable vessel, ready to sail, would cost between $35-40 million Canadian, after all necessary refit work. This ship would be suitable for any of the service scenarios.

(b) Financing: It is envisaged that the service will be heavily leveraged. We have assumed the ship to have primary financing of 80% through bank loans and secondary financing from other sources of 10%. The remaining 10% is financed through owner equity. This is consistant with Cruise/ferry new building and conversion projects recently undertaken in the Baltic. It is also assumed that owner equity will be used to finance all operating losses in the early years of the operation.

Bank interest rates are based on the present Canadian prime rate of 13%. The loans are assumed to be over a 10 year term.

(c) Start-up cost: It is assumed that the owner will be burdened by costs of any infrastructure required at the end ports in order to facilitate the service. This may include the terminal building, acquiring land, customs facilities, Ro-Ro ramp or floating link, etc., depending on each port. The facilities, with the estimated total costs required at each potential port are summarized in Exhibit VI-8.

EXHIBIT VI-8
Summary of required port facilities and services not currently available

	RO-RO RAMP	CUSTOMS AREA	TERMINAL BUILDING	BUY LAND	EST. COST
Halifax	Maybe	Yes	Yes	Maybe	$3.0 million
Yarmouth	No	No	No (lease)	No	$0.5 million
Boston	Yes	For car only	No	No	$1.5 million
New York	No	No	No	No	$0.5 million
New London	Maybe	Yes	Yes	No	$3.0 million

2. Revenues

(a) Cabin price: A survey of fares on worldwide Cruise/ferry services was conducted. The results are presented in Exhibit VI-9. Based on these fares and with special emphasis on the Prince of Fundy Cruises Portland-Yarmouth fare structure, the following cabin prices were estimated for each scenario. These are in Exhibit VI-10.

EXHIBIT VI-10
Cabin prices for scenarios

Scenario	Average Price
Halifax-Boston (long)	$150
Boston-Halifax (short)	$150
New York-Halifax	$175
Boston-Yarmouth	$125
New London-Halifax	$150

These fares are average one-way fares in Canadian dollars and include one evening meal.

(b) Vehicle fare: The vehicle fare is based on the rates for the existing Portland-Yarmouth service which is $90 per day.

EXHIBIT VI-9
International fares (selected routes)

Route	Crossing Time	Passenger Fare ($)	Car Fare ($)	Cabin (Day) ($)	Cabin (Overnight) ($)
Digby-St. John	2.5	Can. 14.25	Can. 44.00	CAN 16-22	---
Yarmouth-Bar Harbour	6	Low 25.50 High 34.00	47.25 63.00	30.50	45.75
Yarmouth-Portland	10.50	Low 45.00 High 65.00	70.00 90.00	20.00 25.00	20.-58 32.-95
Stockholm-Turku (Viking) (Silja)	10-11	25.36 25.50	25.36 25.20		extra 37-160
Stockholm-Helsinki	16	50.00	33.00		70-230
Melbourne-Tasmania	14	60-155	65-150		included
Oslo-Frederickson	10-12	Day 23.80 Night 44.80	36.40 54.60		15-60 15-60
Kiel-Gotenburg	13	54.00	54.00		19-31
Harwich-Gotenburg	24	134.60-220.00 250.00-315.00	63.40	includes berth includes cabin	

In U.S. dollars unless otherwise noted

International fares (selected routes) Con't

Route	Crossing Time	Passenger Fare ($)	Car Fare ($)	Cabin (Day) ($)	Cabin (Overnight) ($)
Harwich-Gotenburg	20.5	72.00-213.00 175.00-250.00	63.40	includes berth includes cabin	
Hull-Rotterdam	15	57.00-102.00	66.00-82.00	includes cabin and meals	
Newcastle-Bergen	20	71.00-260.00	44.00	includes cabin	
Plymouth-Santandor(Spain)	25	87.00-100.00	90.00-120	extra	
Gavle-Kasko (small)	10	22.00-28.00	22.00-28.00		
Travemuende-Helsinki	22.5	120.00-475.00	70.00-140.00	cabin included	

In U.S. dollars unless otherwise noted)

(c) Onboard income: Onboard income from services and activities was estimated from other Cruise/ferry and cruise operators, and is representative of today's getaway passenger spending habits.

3. Expenses

(a) Ship personnel: The number of crew is based on a passenger/crew ratio of 6:1. The distribution of crew is consistent with similar operations. The crew salaries are assumed to be for international crew and are again consistent with existing operations. Domestic crew would increase payroll costs by at least twice the amount of expense associated with a foreign crew.

(b) Consumables and supplies: These are based on cruise industry standard values and are representative of current food and supply costs.

(c) Bunker and lube: The price of bunker and lube oil is taken from current market value.

(d) Port charges and stevedoring: Port charges represent harbour dues, berthing fees, passengers and vehicle embarkation/debarkation fees, as well as stevedoring and other labour related costs. Pilotage and tug fees are assumed not to be applied. Details of Port fees can be found in the Port information in Appendix H.

(e) Ship expenses: Ship expenses include maintenance, insurance and contingency costs. These are expressed as percentages of the ship's cost and are based on current levels experienced by the cruise ship industry.

(f) Onboard expenses: The cost of all onboard services and activities (not including wages) is based on those experienced in the Baltic Cruise/ferry industry and cruise ship operation.

(g) Cost of sales: The cost of sales are represented as a percentage of the full fare price and are consistent with those experienced in the travel and cruise industry.

(h) Other expenses: Depreciation - this is based on a life of 10 years with a straight-line depreciation of 10%.

F. OUR FINANCIAL PROJECTIONS HIGHLIGHT KEY ISSUES

1. Financial projections for service scenarios

From the estimate of costs and revenue developed in the previous section, a 10 year financial projection was carried out for each scenario. A Lotus spreadsheet was

used for the calculations. The output from the spreadsheets for the five service scenarios appears in Appendix I.

The cost and revenue numbers generated from the spreadsheets were used to generate five year pro forma statements and balance sheets for each scenario. In each case, two projections have been done. Case A assumes the owner-coperator uses owner equity to finance the required shoreside facilities (terminal, customs area, Ro-Ro ramp, etc.) while Case B assumes this cost is fully subsidized by one or several levels of government. These detailed pro forma statements are also contained in Appendix I.

A summary of these projections appears in Exhibit VI-11 and 12.

EXHIBIT VI-11
Summary of financial projections
CASE A: No subsidization of infrastructure costs

Scenario		Years to Operating Profit	Required Equity in $000	ROI After Five Years
1A	Boston-Halifax (long)	5.2	$16,370	-51.1%
2A	Boston-Halifax (short)	6+	$28,212	-71.6%
3A	New York-Halifax	5.5	$17,442	-59.9%
4A	Boston-Yarmouth	10+	$31,292	-82.4%
5A	New London-Halifax	5.9	$17,193	-44.4%

EXHIBIT VI-12
Summary of financial projections
CASE B: Subsidization of infrastructure costs

Scenario		Years to Operating Profit	Required Equity in $000	ROI After Five Years
1B	Boston-Halifax (long)	4.6	$10,657	-59.8%
2B	Boston-Halifax (short)	5+	$22,212	-82.0%
3B	New York-Halifax	5.3	$12,942	-69.1%
4B	Boston-Yarmouth	5+	$29,042	-86.2%
5B	New London-Halifax	4.2	$9,493	-51.5%

EXHIBIT VI-13
Sensitivity analysis run summary

Run#	Variable	Value	Years To Operating Profit	Years To Payout
Base Case	--	--	4.1	7.1
1	Passenger Load Factor	50%	9.8	>>10
2		60%	6.6	>10
3		75%	2.9	4.8
4		80%	1.8	2.7
5		90%	<1	<1
6	Cabin Prices	$100	8.6	>>10
7		$125	6.2	10+
8		$175	2.2	3.3
9		$200	<1	<1
10	Ship Purchase Price	$25 M	<1	<1
11		$30 M	<1	<1
12		$35 M	2.5	3.9
13		$45 M	5.4	9.8
14		$50 M	6.7	10+
15	Number of Voyages	90	7.8	10
16		150	1	1
17	Interest Rate	8%	1.7	2.4
18		10%	2.8	4.7
19		12%	3.6	6.3
20		14%	4.3	7.8
21		16%	4.9	8.8
22	Start-up Cost	$2 M	4.1	7.8
23		$4 M	4.1	8.3
24		$6 M	4.1	8.9
25		$8 M	4.1	9.3
26	Stevedoring Cost/Passenger	$4	4.3	7.7
27		$6	4.6	8.3
28		$8	5.1	8.9
29		$10	5.3	9.6
30	Crew Wages	International	4.1	7.1
31		Domestic	6.1	10+

The accepted yardstick for most Cruise/ferry operations is a maximum time before operating profit of 2 years and a maximum project payout of 5-6 years. From this financial analysis, it appears that this type of Cruise/ferry service is not economically viable at this time for the scenarios identified.

2. We conducted a sensitivity analysis to highlight key issues

In order to determine what were the driving forces in the financial projections, a sensitivity analysis was carried out. To accomplish this, incremental changes to various project variables were applied to the financial projection models and the effect on the time to generate an operating profit and the project payout period was determined.

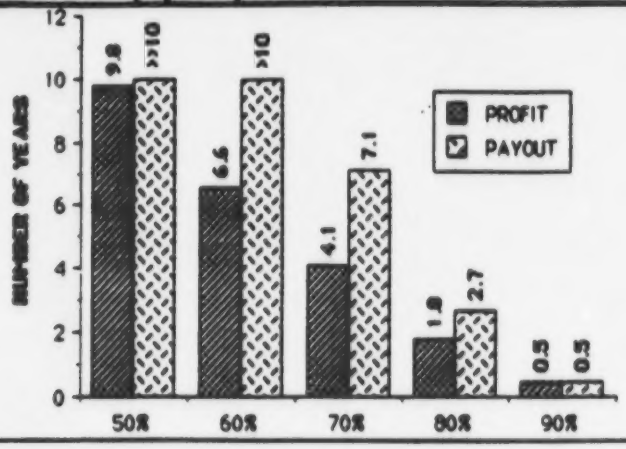
As a starting point, we used Scenario 1B (which is the Halifax-Boston route with no operator start-up costs) as this scenario was among the two, the least unfeasible operation and met the port criteria. See Appendix I for detailed spreadsheet analysis of this scenario.

The variables studied in this analysis were load factor, cabin price, ship purchase price, number of voyages, interest rate, start-up cost, stevedoring costs, and crew wages. Exhibit VI-13 shows a run summary of the analysis. The base case for the sensitivity analysis was a 1,200 passenger ship costing $40 million travelling a 20 hour one-way route between Halifax and Boston, carrying a total of 100,000 passengers (a load factor of 70%).

3. Load factor (Exhibit VI-14)

The operation is extremely sensitive to load factor. A 5% increase in load factor from 70% to 75% results in a drop in years to positive cash flow from 4.1 to 2.9 and a drop in project payout period from 7.1 years to 4.8 years. This indicates that marketing is a key factor in the success of the operation. The difference between the project flying or not can rest on a few percentage points difference in the load factor.

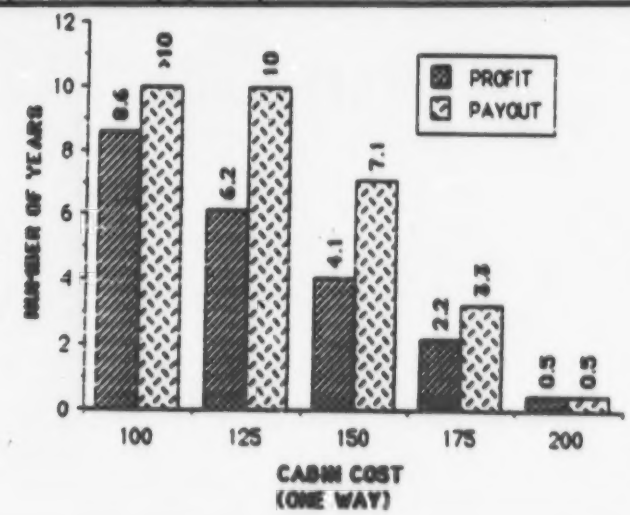
EXHIBIT VI-14
Load factor profit and payout periods



4. Cabin price (Exhibit VI-15)

The cabin price is also a key factor in project finances. A 25% per cabin increase can decrease the time to operating profit by 1.9 years from 4.1 to 2.2 and decrease project payout form 7.1 years to 3.3 years. Settling price levels is an important issue. Of course, the price level ties in with the load factor. Higher prices may mean a lower load factor and therefore the trade-offs between these two factors must be carefully studied.

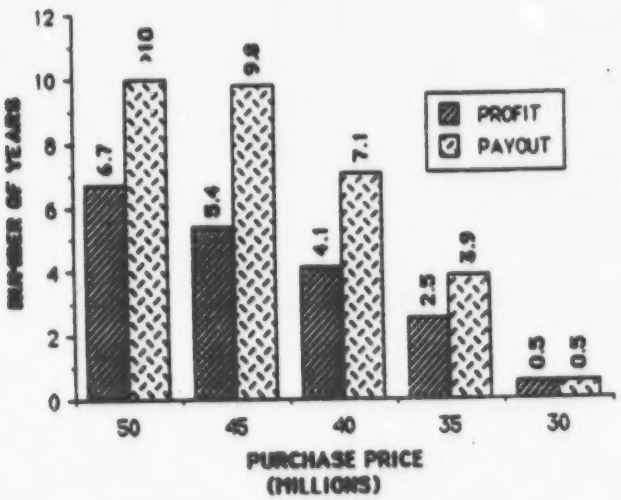
EXHIBIT VI-15
Cabin cost -- profit and payout periods



5. Ship purchase price (Exhibit VI-16)

The service is relatively sensitive to the initial purchase price of the ship though it is not a critical factor. A $5 million change in the cost of the ship causes approximately 1.5 years change in the time to profit and 3 years change in the time to project payout.

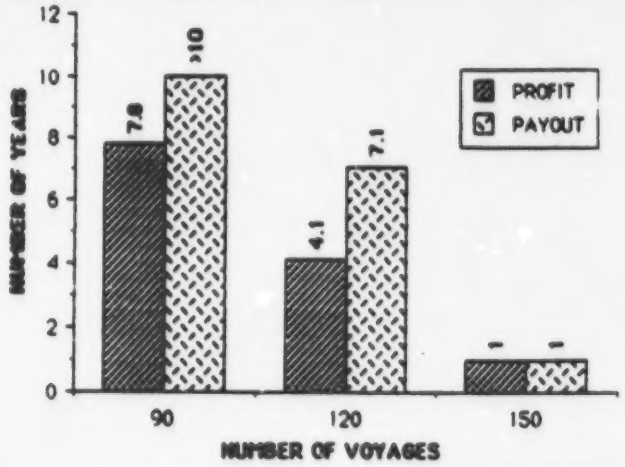
EXHIBIT VI-16
Ship purchase price -- profit and payout periods



6. Number of voyages (Exhibit VI-17)

The service is very sensitive to the number of voyages that the vessel takes. A 25% change in the number of trips causes a 4-year change in the time operating profit and at least a 6-year change in project payout. It is obvious from this analysis that the number of trips must be maximized for what the market can bear at an appropriate load factor. It is clear that off-season use of the vessel will drastically increase the economic viability of the project.

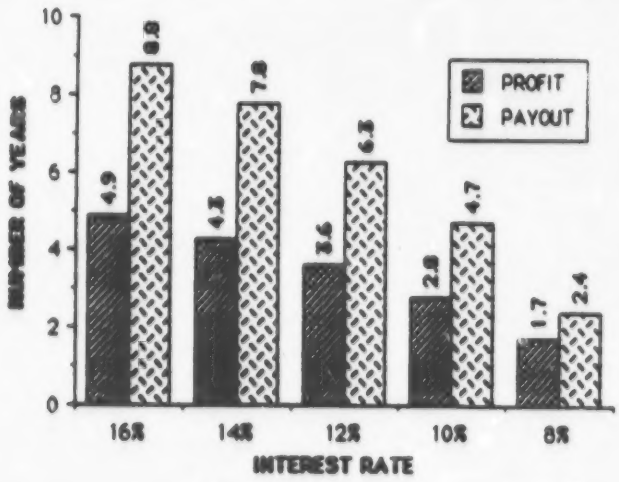
EXHIBIT VI-17
Number of voyages - profit and payout periods



7. Interest rate (Exhibit VI-18)

The operation is not sensitive to the interest rate on the loans even though the project is highly leveraged. A 2% incremental change in interest rate changes the time to profit by less than one-year and the time to payout by 1.5 years.

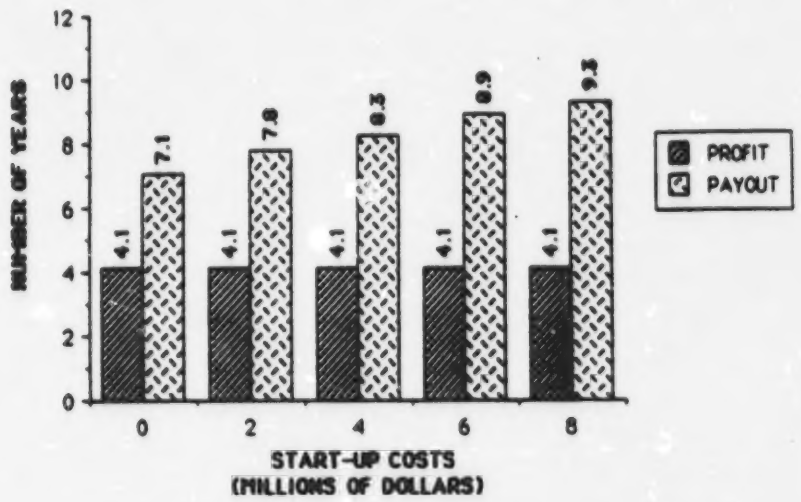
EXHIBIT VI-18
Interest rate -- profit and payout periods



8. Start-up cost (Exhibit VI-19)

The service is not sensitive to changes in the start-up cost assuming the operator has the initial capital. A $2 million dollar change in start-up costs leads, of course, to no change in time to operating profit and only a half year change in time to project payout.

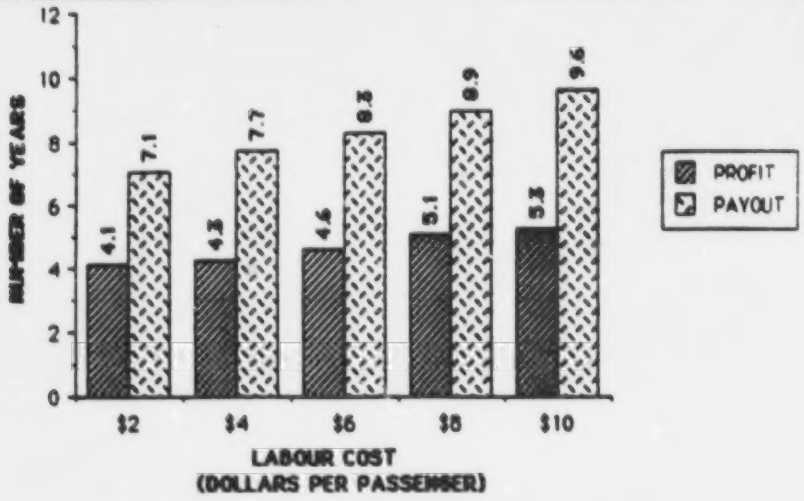
EXHIBIT VI-19
Start-up costs -- profit and payout period



9. Stevedoring costs (Exhibit VI-20)

Stevedoring costs do not influence the operation greatly. A $2/passenger increase in stevedoring costs has minimal affect on both time to operating profit and project payout.

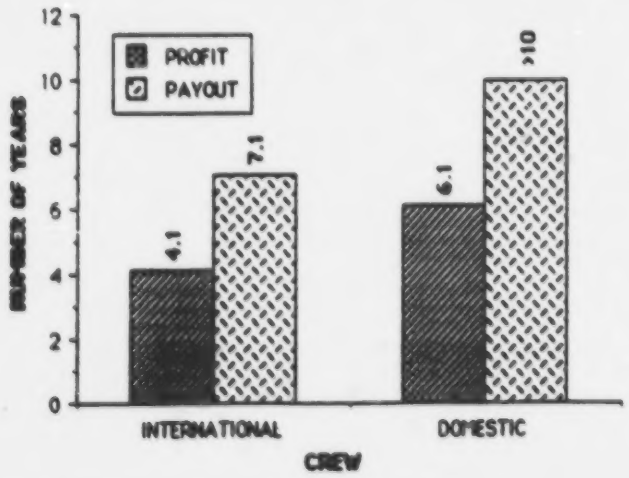
EXHIBIT VI-20
Labour costs -- profit and payout periods



10. Crew wages (Exhibit VI-21)

Crew wages are an important factor in the operating costs of the vessel. A change from international to domestic crew increases time to operating profit by 2 years and time to project payout by over 3 years.

EXHIBIT VI-21
Type of crew -- profit and payout period



11. Summary of key factors in financial projections

From the preceding analysis, the following factors have been identified as key issues affecting the financial outlook of the proposed service are:

- Load Factor
- Cabin Price
- Number of Voyages/Off-Season Option
- Ship Purchase Price
- Crew Wages

The operation was found not to be significantly affected by changes in:

- Interest Rate
- Start-up Cost
- Stevedoring Charges

The base case for the sensitivity analysis: a 1,200 passenger ship costing $40 million, travelling a 20 hour one-way route between Halifax and Boston, carrying a total of 100,000 passengers (a 70% load factor) and sailing 120 voyages over a mid-May to mid-October season, is not financially viable. Of the possible modes of operation, the service only begins to approach a two year time to producing an operating profit and a 5-6 year project pay-out when the ship costs under $30 million, operates at 90% occupancy, or sells cabins at $175.00. These latter scenarios are highly unlikely to succeed. Based on this analysis it is our opinion that the minimum required Cruise/ferry service operating on a six month schedule between any port in Nova Scotia and any port on the Eastern seaboard is not a viable financial concern. The service could only succeed if off-shore utilization of the remaining six months was assured, and even then the venture would be marginally attractive based on ROI after five years.

VII

THE ECONOMIC IMPACT LOOKS POSITIVE

In this chapter we explore the potential economic impact on Yarmouth, Digby and the Province of Nova Scotia of a Cruise/ferry service. In conducting any economic impact a number of assumptions must be made and these are all clearly identified and explained in the chapter. The overall impact on Nova Scotia is positive while a small negative initial impact on Yarmouth and the existing services is seen as relatively minor, and short in duration.

A. THE ECONOMIC IMPACT CALCULATIONS ARE BASED ON A SET OF MAJOR ASSUMPTIONS

1. Nova Scotia tourism and marketing

Just as the visitors to Canada are changing as illustrated in Exhibit VII-1, so to are the visitors to Nova Scotia. As the American population ages they have migrated heavily away from the colder northern states to the Sun Belt, and the further south they move the more difficult it is to bring them to Canada as tourists. This is reflected in the small growth of 0.4% in 1988 of American tourists coming to Canada. In real numbers the growth in tourists is increasingly coming from overseas travellers.

The preliminary 1989 tourist numbers for Nova Scotia are presented in Exhibit VII-2. While the number of Canadians travelling within Canada to Nova Scotia is up by an estimated 1% the number of Americans coming to Nova Scotia dropped by slightly less than 1%. In terms of 10 year trends the Fly/Drive tourist segment is increasing; motorcoach traffic has shown no overall growth; RV traffic is stable and the 10 year trend in auto travel is levelling off and has declined steadily since 1975 high numbers.

Marketing efforts to New England by the Nova Scotia Government and the tourism industry have increased with major initiatives such as Sea-Sell and recent advertising campaigns. The number of inquiries to the Portland, Nova Scotia Provincial Tourism Centre went up from 100,000 in 1988, to 145,000 in 1989. However, these requests are being converted into fewer American visits as the 1989 number of American visits is estimated to be 5% lower than those in 1988 (Source: Gordon Stuart, Check In N.S.).

Motor vehicle traffic represents 75% of the visitor volume to Nova Scotia. In 1988, this represented 820,400 persons. In 1989, preliminary counts indicated a very similar total number of visitors to Nova Scotia. Within the total the U.S. motor vehicles declined in 1989 to 69,336 (Woods Island Excluded - October 15, 1989 Fast Track Topline Tally Results) representing a 6% drop over 1988.

Based on these facts this study assumed for the economic impact that the visits by American Tourists to Nova Scotia would not grow significantly from the current plateau of 254,000 based on the past three years' trends. This assumes no major new advertising and promotions efforts beyond current levels.

EXHIBIT VII-1
Shifts in patterns of Foreign travel to Canada

	1987	1988	% CHANGE
Total foreign visit	15 million	15.5 million	+3.4%
USA VISITORS	12.7 million	12.8 million	+0.4%
TOTAL OVERSEAS VISITORS	2.3 million	2.8 million	+20.3%
United Kingdom	446,300	535,600	+20.0%
Japan	253,500	329,500	+30.0%
West Germany	239,200	267,900	+12.0%
France	189,100	230,700	+22.0%

Source: Canadian Tourism Research Institute, July, 1989

EXHIBIT VII-2
1989 Fastrack topline tally results to October 15, 1989/Nova Scotia

	1986	1987	1988	1989	% Change 88/89
Motor Vehicles					
Canadian	352,845	377,149	384,523	389,799	1%
American	76,086	73,421	73,550	69,336	-6%
Motor Coaches					
Canadian	356	389	355	379	7%
American	856	866	751	787	5%
Recreational Vehicles					
Canadian	18,540	19,224	21,539	19,360	-10%
American	14,304	14,224	15,097	11,411	-24%

Source: Nova Scotia Department of Tourism and Culture

The second assumption is that overseas visitors will be attracted to a Cruise/ferry service, but that their numbers will be small and will not be significant in economic impact assessment.

2. Americans are shifting to ferry travel

Preliminary indications, illustrated in Exhibit VII-3, are that US vehicle traffic is converting from road entry to use of ferries. In 1988, Yarmouth saw an increase of 5% in American Automobile person volume over 1987 (Source/Statistical Reviews, 1987 and 1988, Nova Scotia Tourism Season), and the trend seems to be continuing in 1989. Discussions with the principals at Prince of Fundy indicated an increase from 171,946 passengers and 27,812 vehicles in 1988, to 177,565 passengers and 30,015 vehicles in 1989. This increase in use of the existing ferry services is supported by a 10% increase in the room sales of the Evangeline Trail Tourist Association (Source: N.S. Tourism and Culture), although this latter number includes all visitors and reflects the impact of the new Upper Clements Park.

Lifestyles research on American's over the past 18 years (as reported in the Yankelovich Monitor, 1988 Annual Survey) indicates a basic shift in American values. Several of these emerging values are relevant to the vacation patterns of American travellers, in particular streamlining and substance. By streamlining the report means the way Americans handle time and complexity. The American Consumer of the 1990's is seeking ways to make their life simpler, more manageable. Convenience is the key and time sensitivity the driving force. With less time available for vacations and short breaks replacing longer holidays, the American Traveller looks for short-cuts that won't detract from their vacation experience. By taking a ferry they can enhance their vacation experience while reducing driving time.

The second value of importance is the seeking of substance. More and more Americans are looking for inherent meaning and value in the things they buy and do. They seek things which are straightforward and honest and which have staying power and reliability. As tourists this has meant a search for "real" experiences as part of a vacation and the ferry offers a taste of sea adventure as part of the vacation trip.

Together these values indicate an increasing growth potential in convenient "real" experiences such as that offered by a ferry. Our assumption based on these trends is that US visitors travelling to Nova Scotia by vehicle will increasingly make use of existing services rather than take the longer drive through New Brunswick.

3. Differences in cost and time between existing services and a Cruise/ferry will limit cannibalization of ferry customers

Chapter V presented estimates by lifestyle segment of those persons who would be attracted to a Cruise/ferry concept. Current ferry offering characteristics differ significantly from the features sought by these segments in three ways:

- The Cruise/ferry represents a trip cost of at least three times that of existing services for a family of two adults and two children. Many current service users would find this prohibitive.

- The trip time of the Cruise/ferry is a minimum of twice that of existing ferry services. This longer trip time is seen as a deterrent to many travellers whose primary purpose is to tour Nova Scotia. The reduction in driving time of Boston/Portland does not compensate for the additional sea time.

- Current users of ferry services cover all segments of Canadian and American society. A Cruise/ferry service is more up-scale and narrower in appeal.

For these reasons our assumption is that the cannibalization of existing consumers using ferry service to Nova Scotia will be minimal. It will be limited to a small portion of the more up-scale travellers, typically those who are dissatisfied with the level of accommodations on the Prince of Fundy. For the purposes of this study it was assumed that the services offered by the MV Scotia Prince would not be significantly upgraded. A major upgrade of cabin facilities to cruise standards would have some impact on potential new service. This impact on existing services would not be large and it is assumed would not lead to the loss of any existing service.

4. US competition for Get-Away-Cruises will not be a significant obstacle to the new service

In the Profile of the Eastern Canadian Cruise Industry (Tourism Canada, December 1988) the size of the North American cruise market was projected to double to 6.1 million passengers by 1997, a 14% per annum growth. The growth in cruise itineraries was projected to be greatest in the 4-7 day cruise market. Experience has shown that a large and increasing portion of passengers (presently 30%) are repeat cruise patrons. The study concludes that the cruise industry is a high growth industry and that Canada can become a prime benefactor of this growth, particularly Eastern Canada.

No estimates of ship capacity for get-away cruising out of New England ports is available. Discussions with cruise industry experts and cruise booking agents indicate current and projected get-away cruise capacity lags the growing demand in New England leading to the assumption that a new Cruise/ferry service actively marketed in the area would not be overly constrained by existing get-away cruise services. This was supported by the focus group results which indicated high levels of interest in the concepts.

5. Marketing activity for the new service will increase awareness of Nova Scotia in eastern seaboard markets

As a new Cruise/ferry service to Nova Scotia is marketed in the United State, awareness of Nova Scotia as a tourist destination will grow in other segments of travellers. This awareness of Nova Scotia in persons who do not use the new Cruise/ferry

service is assumed to have a small positive impact on overall American travel to Nova Scotia by all means.

EXHIBIT VII-3
1989 Ferry Traffic Volume Increases

	Increase 89 over 88	
MV Bluenose	Automobile	2%
Princess of Acadia	Automobile	5%
	Passenger	4%
Scotia Prince	Automobile	8%
	Passenger	4%

Source: Check In Nova Scotia

6. Impact on the existing service will be minimal

Based on the conclusion of previous sections, for the purposes of economic impact assessment, we have assumed the existing services will not be affected to any great extent by a new Cruise/ferry service. It is not possible to state categorically that some potential passengers of existing services will not find the Cruise/ferry option more attractive. Our assumption is that this number will be small, not more than 3,000 passengers. This assumption must be balanced by the growth potential clearly demonstrated in recent years, and the positive impact of additional communication about water based transportation to Nova Scotia.

For this reason we have conducted our economic impact analysis with three levels of assumptions of impact on existing services for American passengers:

- A worst case scenario of 3,000 lost passengers to Yarmouth services.
- A most likely case of 1,500 lost passengers to Yarmouth services.
- A best case of no impact on Yarmouth.

These three levels are considered by the consultants as conservative assumptions. It is possible that the addition of a new Cruise/ferry service to Nova Scotia will attract additional new customers to existing services and, in fact, increase rather than decrease their passenger loads and have a positive impact on Yarmouth.

7. Nova Scotians will shift to a Cruise/ferry service

The focus groups conducted in Halifax gave indication of very strong levels of interest in a Cruise/ferry service to New England, particularly Boston. Others found the concept attractive as a new way to begin or end a driving holiday to the U.S.A. As discussed in Chapter V, Nova Scotia has a significant get-away market that currently take their car on 75% of short vacations. In arriving at the market segment estimates for Nova Scotia of 15,000 person trips in the primary market and 6,500 person trips in the secondary market, propensity to currently travel to the USA was one key factor.

Based on these indications, the consultants have assumed that 40% of the primary Nova Scotia market and 30% of the secondary Nova Scotia Market, who currently travel on one of the existing Yarmouth ferry services, would switch to the new Cruise/ferry service. This number of 8,000 passenger trips is kept constant in each case of economic impact analysis.

8. Bus tours will switch

In every case, bus tour operators indicated a strong appeal for the Cruise/ferry concept, particularly as an exciting end to a Nova Scotia package tour. Because of the anticipated higher costs of this option, these operators indicated that the Cruise/ferry service would only fit with their higher end tours. Estimates of motorcoach traffic are very flexible, dependent on source, but typically range from 1250 to 1500 bus tours each year (N.S. Tourism estimate).

Our assumption is based on the fact that 60% of current American based motorcoaches enter by Yarmouth (N.S. Tourism estimate). Using 1400 motorcoaches as the base figure and 1988 entry point data, 535 motorcoaches entered by Yarmouth (N.S. Tourism 1988 Statistical Review). Our assumption is that 75 motorcoaches (14%) will switch to a new up-scale Cruise/ferry service. This estimate is the average of estimates provided by the six largest American tour bus operators. This assumption was kept constant across the three scenarios.

B. THE ECONOMIC IMPACT ON NOVA SCOTIA

A number of assumptions were made in calculating the negative economic impact on Yarmouth as a result of a shift of passengers from Yarmouth to Halifax. We calculated the economic impact of a worst case, most likely case, and best case scenario. Each scenario is examined in detail below.

Best Case Scenario

- 8,000 Nova Scotia Ferry Passengers switch to the Cruise/ferry service.
- 75 bus loads of tourists switch to the Cruise/ferry service.

- No U.S. ferry passengers travelling by auto, switch.

We have assumed an average daily expenditure for all visitors at $54.96 per person per day. The average daily expenditure figure typically used in Nova Scotia is $45.86. However, this average has been calculated across visitors who use paid accommodations and those who do not. In the case of Yarmouth-bound ferry passengers, the majority would pay for accommodation. Thus, we have modified the average daily expenditure to reflect the average room rate existing in Yarmouth.

The $54.96 daily expenditure is distributed as follows:

Accommodation	$20.26
Recreation and Entertainment	$ 2.85
Food & Beverage	$14.31
Local Transportation	$12.01
Retail	$ 5.53
	$54.96

(Source: Tourism NS)

We have assumed that both the bus passengers and the Nova Scotia passengers would consume a meal in Yarmouth but not stay overnight. Detailed investigation of the actual numbers of Yarmouth overnights has not been conducted. Again, under the best case scenario, we assume that no U.S. ferry passengers travelling by auto will switch. Therefore, assuming an average bus load factor of 38.71 and given that the per person food and beverage expenditure is $14.31, $156,022 in direct expenditure would be lost to the Yarmouth area under the best case scenario.

This loss of direct expenditure translates into a slightly larger loss of $159,761 in income passed on the income multiplier effect. The loss of expenditure would also result in the loss of 13.0 person years of employment in the food and beverage sector. Lastly, potential annual investment of $8,835 will be lost to the Yarmouth area as a result of the loss of expenditure.

Likely Case Scenario

- 8,000 Nova Scotia ferry passengers switch to the Halifax ferry.
- 75 bus loads of tourists switch to the Halifax ferry.
- 1,500 U.S. ferry passengers travelling by auto, switch.

This scenario will produce the loss of expenditure resulting in the best case scenario with an additional loss of 1,500 U.S. ferry passengers. We have assumed that these passengers would stop overnight in the Yarmouth area. At an average per diem expenditure of $54.96, this would result in an additional loss of $82,440 in direct expenditure. Coupled with the loss of 8,000 Nova Scotia passengers and 75 bus loads of tourists, the total loss of expenditure under the likely case scenario is $238,462.

This loss of direct expenditure translates into a loss of $244,176 income and $13,508 of investment to the area. The resulting displacement of employment would be 18.49 direct and indirect person years of employment across all sectors of the tourism industry.

Worst Case Scenario

- 8,000 Nova Scotia ferry passengers switch to the Halifax ferry.
- 75 bus loads of tourists switch to the Halifax ferry.
- 3,000 U.S. ferry passengers travelling by auto, switch.

Given the average per diem expenditure and other assumptions found in the previous scenarios, the worst case scenario would result in a loss of $320,902 in direct expenditure. This would translate into a loss of $328,592 of income to the area, $18,178 of investment, and 24.0 direct and indirect person years of employment.

In summary than, the best, likely, and worst case scenarios would result in the following impacts on the Yarmouth area:

	Best Case	Likely Case	Worst Case
Direct Expenditure Lost	$156,022	$238,462	$320,902
Income Lost	$159,761	$244,176	$328,592
Direct & Indirect Person Years of Employment Lost	13.0	18.49	24.0
Investment Lost	$8,838	$13,508	$18,178

Based on the 1988 statistics for Nova Scotia total travel revenues were $760 million. There is no agreed on method to apportion this revenue accurately to each of the tourism area associations. For the purposes of this study, the number of guest days sold by each area on a percentage basis as presented in Exhibit VII-4 has been utilized. Yarmouth represents 4.4% of guest nights. Applying this percentage to the 1988 total travel revenues indicates Yarmouth's approximate tourism revenue as $33.44 million. Based on this number the best case scenario impact on Yarmouth is 0.5% of existing tourism revenue and the worst case is a 1.0% decline of total tourism revenue.

EXHIBIT VII-4
Distribution by area association of guest days - 1988

Antigonish/Eastern Shore	4.0%
Evangeline Trail	10.2%
Cape Breton	19.6%
Central Nova	8.0%
Dartmouth	7.8%
Halifax	29.0%
Pictou	3.6%
South Shore	6.7%
Yarmouth	4.4%
Metropolitan	6.5%
	100%

We must also examine the additional benefit created by the addition of the Cruise/ferry service in Halifax. After undertaking this calculation, we can determine the net provincial benefit resulting from the project.

We have assumed that 60,000 people would be carried per year to Halifax as a result of the new service. This is based on the assumption that there would be 60 trips in and out of the city per year, with an average ship of 1,000 passengers per voyage.

We have made an additional assumption that 30,000 of these passengers would have cars and 30,000 would not. This is based on a maximum load of 200 cars per ship, with an average auto load factor of 2.53 passengers.

We have assumed that the 30,000 passengers with cars would tour the province for at least three days, based on the proposed Cruise/ferry schedule. At an average per diem expenditure of $45.86, this would generate $4,127,400 in the province. This level of expenditure would generate $4,226,314 in income and $233,796 in investment. This expenditure would also maintain or create 278.5 direct and in-direct person years of employment.

We have also made assumptions about the remaining 30,000 passengers without cars. We have assumed that 37.5% would simply consume a meal and 'turn around', 37.5% would remain overnight in Halifax, and the remaining 25% would rent a car and tour the province for three days. Based on our assumptions on per diem expenditures, these 30,000 passengers would generate $1,708,744 in direct expenditure in the province.

This level of direct expenditure would translate into $1,749,694 in income and $96,792 in investment. It would also create or maintain 117.6 person years of direct or indirect employment.

In summary then, the 60,000 Halifax-bound passengers would generate:

Direct expenditure	$5,836,144
Income	$5,976,008
Indirect & Direct Person Years of Employment	396.1
Investment	$330,588

Thus, when we examine the project from a provincial perspective in order to determine the net provincial benefit, Nova Scotia as a whole would realize a positive economic return, despite the negative impact on the Yarmouth area.

Even in the worst case scenario, the following net provincial benefits would result:

Direct expenditure	+$5,515,242
Income	+$5,647,416
Indirect and direct person years of employment	+372.1
Investment	$312,410

4. Direct positive impact of ship operations

The previous sections presented the net impact/benefits attributable to the tourist traffic generated by a Cruise/ferry service. Additional monies would accrue to Nova Scotia as a result of the vessel operations. These are presented in Exhibit VII-4. This exhibit is based on the ship economics of the base case (most likely) Cruise/ferry service; a 1200 passenger/225 car vessel operating Halifax/Boston on a 120 day season. The service could have Canadian Officers and Canadian Management of hotel and catering operations.

It is assumed that the vessel's home port would be in the U.S.A. All other items are assumed to accrue equally to the destination ports.

This positive impact of $3,510,000 accrues to Nova Scotia and reinforces the overall positive impact of the Cruise/ferry service.

EXHIBIT VII-4
Ship operations annual expenditures accruing to Nova Scotia

Category	Annual $ Amount (000)	% Benfit	Total
1. Ships Officers	264	100%	264
2. Catering Managers	285	100%	285
3. Catering Supplies	900	50%	450
4. Bunker and Lub Oil	2,574	50%	1,287
5. Port Charges and Stevedoring	1,648	50%	824
6. Ship maintenance	800	50%	400
TOTALS	$6,471		$3,510

Source: Wartsila Cruise Ship Economics

C. THE SMALL COMMUNITY IMPACT CAN BE AMELIORATED

The negative impact on Yarmouth is seen as minor; ranging from $160,000 to $330,000. Several factors are not included in the consultant's impact assessment, but each one has the potential to ameliorate, or even reduce to zero any negative impact on Yarmouth. These factors are:

- Improved tourism facilities and attractions in the Yarmouth area.
- Possible reversal of the MV Bluenose schedule.
- An even greater shift to use of existing ferry service by Americans than anticipated.

In the interviews of Yarmouth area tourism operators and civic officials, several initiatives were mentioned as playing a future positive role in encouraging greater stopovers in Yarmouth as a tourist destination in its own right. Included in these initiatives were:

- Revitalization/renovation of the waterfront area to include the presence of working fishing boats.
- A new marina.
- Possible development of a "French" and a "Fishing" village close to Yarmouth.
- A continuing program of upgrading local infrastructure.

Marine Atlantic has requested proposals to update a 1983 study on the impact of reversing the MV Bluenose schedule. This study concluded that a reversal of the existing schedule would require an additional 300 rooms in the Yarmouth area to meet peak season demand.

The final factor; the potential for an even greater shift by Americans to water-based travel, is perhaps the most difficult factor to assess, but the one with the greatest potential advantage to Yarmouth and Nova Scotia. The shifting values discussed earlier are seen by many as having already taken a grip on American consumers and thus significantly influencing their purchase decisions. M.E. Sandler, President, Creative Research Group Ltd. concluded in her report "The Consumer of the 90's" that Americans are at the beginning of a new era that will last for the next 10 to 15 years and this new approach to life based on fundamental value shifts has clearly already begun.

Any one of these three factors could more than compensate for the loss of passenger traffic on existing ferry services, and taken together they make a reasonable case to conclude that any initial negative impact on Yarmouth of the potential Cruise/ferry service could be ameliorated in subsequent years.

VIII

THE PREFERRED SCENARIO

In this chapter we revisit the success factors of Cruise/ferry services, the growth of water travel to Nova Scotia, the market factors, route possibilities, and economic impact factors leading to our preferred scenario for a Cruise/ferry service between Nova Scotia and New England.

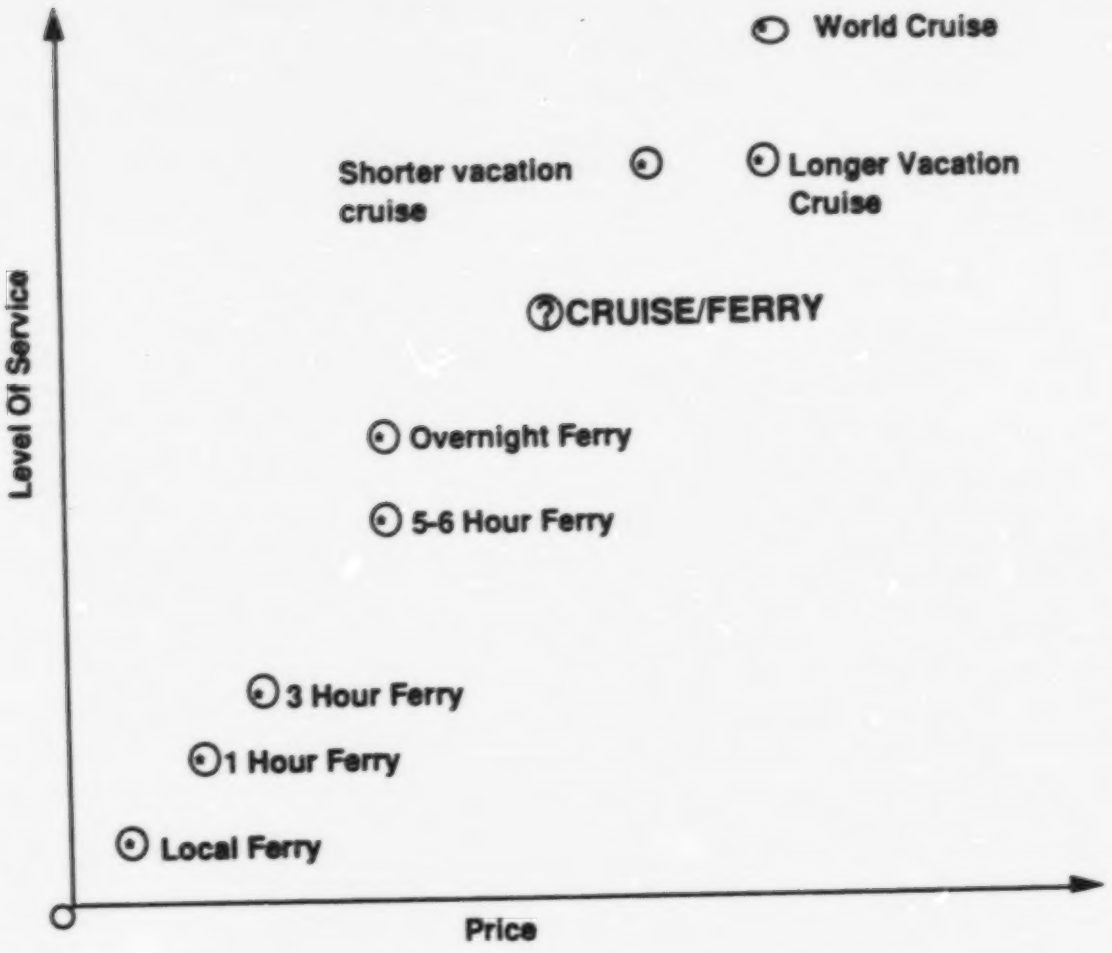
A. CRITERIA WERE DEVELOPED TO ASSESS MANY POSSIBLE SERVICE SCENARIOS

From the outset it was clear that cruising is becoming an ever more important part of the realm of vacation choices. As well, the European concept of a Cruise/ferry has moved from the early stages of development where they operated more as traditional ferries to a new concept, the Cruise/ferry. Consumer perceptions of the various services is represented in Exhibit VIII-1. While it is not exactly clear where a Cruise/ferry service will fall in the North American consumer's perception; in Europe the service is focused on high levels of service, excellent food and accommodation and lots of fun and entertainment. It is our judgement that a similar level of service is required on a Nova Scotia/New England Cruise/ferry service. The success factors of such a service were identified as:

- Overnight crossing.
- Large urban areas at each end.
- Fast loading and unloading.
- A "pleasure" experience.
- Full onboard entertainment.
- Duty free shopping and gambling.

In sum, the Cruise/ferry concept is more than a ferry both in form and substance. The focus is much more akin to cruising and the cruise experience with the ability to transport vehicles for those who so wish.

Exhibit VIII-1
Consumers perception of water-based travel services



The use of water-based transport to Nova Scotia was explored by looking at the existing services and their history. The trend toward increasing use of these services was explored, and further clarified by the recent 1989 traffic growth over 1988 based on preliminary numbers. This shift is supported by the changing demographics and values of an aging North American population. Shifts that indicate an increasing need for shorter vacations built on value and excitement.

These shifts are then supported by the rapid growth of the cruise industry and the large market potential of new cruisers rapidly entering the age and income brackets where the concept begins to have strong appeal. The trend toward shorter, get-away vacations is

matched by the growth of this cruising segment. Focus groups in the potential market areas reinforced the secondary research by providing clear indicators of interest in the concept, but more focused on specific routes, services and price expectations. These market expectations were then supported by lifestyle analysis of the three affected primary markets, Nova Scotia, Massachusetts, and New York, to provide preliminary market size indications. At this point, it was clear that a well positioned Cruise/ferry service could attract 100,000 passenger trips per season and that many of these would take the Cruise/ferry service as a get-way vacation. It was also apparent that the majority of these travellers would represent a new market for Nova Scotia tourism.

To match consumer expectations with the reality of ship economics a detailed examination of routes eliminated the most distant ports of Baltimore, Norfolk, and Sydney. This was based on a Cruise/ferry service of under 24 hours allowing one day transit and next day return. The remaining possibilities of Boston, New London, New York, Yarmouth, and Halifax, were then developed into detailed concepts for evaluation. The market research indicated the levels of service expected and the existing service success factors reinforced certain key elements as follows:

- The ship.
- The route.
- The service.

The experience of Wartsila staff indicated that the size, features, and expected cost of a minimal ship that would meet these criteria were:

- Ship approximately $40 million including purchase and refit.
- Size 1,200 -- 1,400 passengers/225 cars.
- At least four restaurants, gambling, Dutyfree shopping.
- Superior cabins, all with private facilities.

These basic criteria were then tested in ship economic models to determine the key driving factors in the overall costs of a Cruise/ferry service. The results emphasized the fact that the most important variables in the various service scenarios were:

- Passenger load factors.
- Cabin costs.
- Number of voyages per year.
- Capital costs of the ship itself.

It was found that the actual route distance and operating costs have little overall impact on overall ship economics, but that the Cruise/ferry was not financially viable based on a six-month Nova Scotia service..

Once the ship economics were understood, the impact on Nova Scotia and Yarmouth was examined. A number of assumptions guided this economic impact analysis, most important of which were:

- The majority of users would be Americans.
- These potential users would represent a substantially new market.
- Some existing users of Yarmouth-based services would switch.
- The get-away vacation segment would spend some time in Nova Scotia after arrival.

The net result of this assessment is very positive for Nova Scotia, and minimally negative for Yarmouth at the outset of the new Cruise/ferry service. A number of factors were then identified that indicate this small negative impact on Yarmouth could be quickly offset by overall growth in the water-based transport market.

B. ONE SCENARIO IS PREFERRED

One scenario emerged from all of the above factors as having the greatest potential for long-term success. This Cruise/ferry service would operate between the large urban centres of Halifax and Boston. The ship would have a minimum capacity for 1,200 passengers and 225 cars. It would make three trips in each direction, a total of six trips per week over a twenty week season, extending from late May to mid-October. The schedule would be designed for arrival in mid-morning with a late morning/early afternoon departure in both ports. The ship would travel on average of 18 knots and spend 20 hours at sea. The ship would have foreign registry and would be U.S. based.

Onboard the ship would have 600 cabins capable of providing all passengers with comfortable accommodation with full private facilities for each cabin. There would be a minimum of four restaurants, providing a full range of dining experiences from gourmet, white table cloth, to cafeteria. Entertainment would focus on two nightclub areas featuring live music, dancing and floor shows. One area would feature pop music while the other provided a more relaxed atmosphere. The entertainment would be high quality and varied from comedy to recognized stars.

For those inclined to gamble, a full casino would operate continuously while the ship is in international waters. Bars would be placed in each entertainment area, including the pool, sauna and hot tub areas. Shopping would be available in a retail mall featuring up-scale duty free items including liquor. There would be a small beauty salon, full health

club, and the services of recreation directors. Programmed activities would be kept to a minimum, and all efforts would be geared toward creating a fun atmosphere. For families travelling with children, a video arcade, babysitting service, and non-alcoholic disco club would be available.

Passengers would pay an average of $150 per day, including cabin and dinner. The get-away return trips would be packaged to include all meals. Tickets would have been purchased through a full service travel agent or specialized cruise agent. Reservations would be simple and completed over an airline-like reservation system. For those interested in extending their cruise at either end, a range of packages would be available for hotels, ground transportation and special tours.

In the off-season the vessel moves to another market in Australia/New Zealand where it provides similar service from November through to early May. In the first year of operation, 70% capacity utilization is reached, and by the second year, reservations in the peak periods are made well in advance as the vessel operates near capacity.

IX

STRATEGIES FOR A CRUISE/FERRY SERVICE FOR NOVA SCOTIA

In this final chapter we outline the strategic actions and timelines for key events in establishing a Cruise/ferry service for Nova Scotia. A marketing strategy framework to reach the identified key potential market segments is presented.

A. SEVERAL STRATEGIC ACTIONS MUST BE TAKEN TO OBTAIN THE SERVICE

The concept of a Cruise/ferry service between Nova Scotia and New England has been demonstrated to have potential. A well designed and promoted service has the opportunity to open new tourism markets for Nova Scotia by attracting new American visitors while enhancing the image of the Province as a sea faring destination. In the previous Chapters the market potential has been defined, various service offerings tested, and a preferred scenario recommended.

The establishment of such a service faces several significant obstacles, most of which are directly related to supporting infrastructure needed to make such a service viable. In Chapter III we discussed the ability of existing services in Europe to offload over 2,000 passengers and vehicles in under one hour. Imagine this number of persons moving through Canada Customs in under one hour. A difficult concept to grasp. In terms of shore facilities Yarmouth is ready to go with all the required ramps, customs facilities and buildings, while Halifax has none of these. Yet Yarmouth would not be a viable destination from a marketing perspective. American travel consumers are interested in an urban destination and the success of other similar services depends to a great extent on urban destinations. Boston, on the other hand, does not have the required Ro-Ro ramping and would need to invest $1.5 million in the Black Falcon passenger cruise terminal to accommodate the service. New York, however, is sitting with an unused Cruise/ferry ramp.

You, therefore, have the possibility of an almost immediate Yarmouth/New York Cruise/ferry service with little capital investment and little chance of financial viability. Or you have a Halifax/Boston Cruise/ferry service with major infrastructure capital investment requirements and a fair chance of long-term financial viability and success if off-season use of the vessel is assured. The two alternatives present a difficult problem. From all indications a New York/Yarmouth Cruise/ferry service would not attract the required volumes of traffic to be viable. The only recommendation possible is to consider a Halifax/Boston service, with Halifax/New London as a second, less attractive alternative. Our development strategy follows.

In order for the preferred scenario to be realized, there are several important strategic issues that must be addressed and definite steps that should be taken by any service proponent . The Government involvement in creating the service should focus on financing capital investment projects for the Port of Halifax, addressing any infrastructure problems associated with the ports, and in supporting any marketing efforts with potential operators. To this end, the following steps are recommended:

- Solicit proposals for service.
- Become involved in Marine Advisory Council.
- Secure appropriate wharfage in Halifax.
- Finance passenger terminal and other facilities.
- Negotiate with U.S. level of government for capital funding for Boston.
- Hire union negotiator.
- Study off-season use.

1. Solicit proposals for service

The Government should begin by soliciting proposals from the cruise industry and other interested operators to provide the preferred service between Boston and Halifax.

The key parts that should be addressed in such a proposal from interested operators are:

- Sourcing of Ship.
- Conversion Scope/Lead Purchase.
- Budget Review.
- Assemble Crew.
- Float Ship.

Time lines for critical tasks related to shore facilities and tasks the proposed operator must perform are shown in Exhibit IX-1 and IX-2.

EXHIBIT IX-1
Time schedule -- Shore facilities

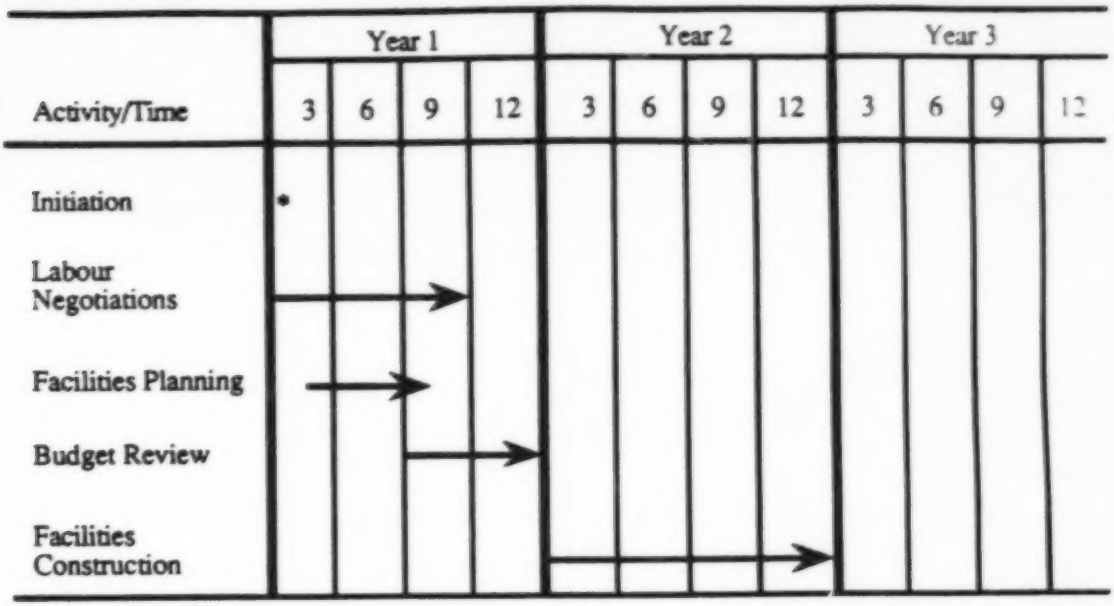
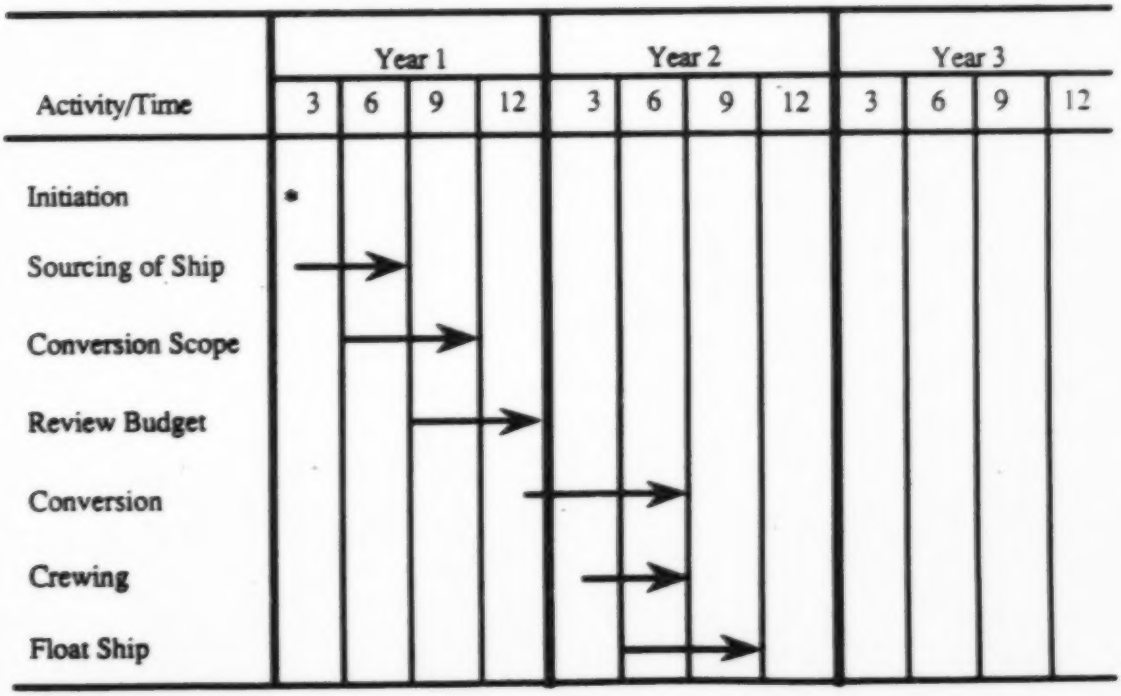


EXHIBIT IX-2
Time schedule -- Ship modernization (Proposers)



2. Join Marine Advisory Council

The Marine Advisory Council in Halifax is made up of all interests involved in the Port. The concept of a Cruise/ferry service to Boston should be presented to the council by any potential service operator. Discussion with the Council will plant the seed for the idea leading to constructive discussion on how to best make it happen. Since all port-related interests are represented on the Council, this will provide the best forum for negotiating trade-off solutions to any problems that are voiced.

3. Secure Wharfage in Halifax

The most difficult problem to overcome in realizing this operation is finding a permanent location for a passenger and vehicle terminal in the Port of Halifax. Since Government interests control much of the waterfront, a site must be identified (such as Woodside Atlantic Wharf) and set aside for a permanent passenger facility.

4. Finance passenger terminal and other capital projects

Once a site is selected, one of the more useful contributions the Government could make to the potential Cruise/ferry service is to becoome involved in the provision of the passenger terminal, Ro-Ro ramp, passenger and vehicle customs areas, and vehicle holding area. It has long been thought that Halifax needs a permanent, modern, cruise passenger terminal, due to the ever-increasing cruise business on the East Coast. A suitable facility could be built which can handle both Cruise/ferry and passenger cruise vessels. Even if the Cruise/ferry service folded, the Halifax/Dartmouth area would be left with a modern terminal to service the increasing number of cruise ships visiting Halifax. The terminal itself would likely result in increasing cruise ship visits.

5. Negotiate with U.S. Governments

Nova Scotia has an excellent relationship with the City of Boston. If the Cruise/ferry operation put forward by a potential operator was seen as reasonable by the Nova Scotia Government, the Port of Boston authorities may be persuaded to finance capital improvements at the Black Falcon Cruise Terminal.

6. Hire union negotiators

It is important early on that the labour situation in Boston and Halifax be addressed. A professional union negotiator should be hired to lobby the unions to allow the Cruise/ferry to operate without requiring excessive union labour. The unions must be made to realized that, if the service succeeds, it will provide several permanent jobs for the ports; however, if it fails due to high labour costs, there will be no jobs.

7. Study off-season use

An evaluation of potential off-season use should be undertaken to explore alternate vessel utilization.

B. MARKETING ACTIONS WILL BE CRITICAL ONCE THE SERVICE IS ANNOUNCED

As the study progressed it became clear that a Cruise/ferry service would face a classic marketing challenge; that of creating awareness and understanding of a new service concept. The market have a clear perception of a ferry service and one influenced greatly by the "Love Boat" television program of what a cruise service should be. The combination of the two terms, Cruise/ferry, is sure to create an ambiguity and confusion in the travelling public's mind. Is it a ferry or is it a cruise?

Marketing's challenge will be to explain the concept clearly and effectively to a number of different target markets.

1. Target markets

The target markets for a Cruise/ferry service will seek information on possible get-away trips from specialized cruise or travel agents nine out of ten times. Marketing communications need to create awareness of Nova Scotia as a destination and the Cruise/ferry as a means of travel. These two purposes can work in harmony in the New England market. Marketing efforts need to focus on awareness in print media advertising (preferred source of information of 75% of the up-scale segments) and focused communications on the service and Nova Scotia for the travel industry.

2. Cooperative marketing will improve tourism for all

Cooperation between the Cruise/ferry service, Marine Atlantic, and Prince of Fundy cruises could increase awareness of water based travel options in a broader section of the American market. By working together with the Department of Tourism joint campaigns could be developed to piggy-back on provincial efforts such as Sea-Sell and direct mail campaigns. This cooperation has the potential to reach a much wider travel market and increase the use of all water based services.